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COURSE OF LECTURES
ON
DISEASES OF THE SKIN;
THEIR
HISTORY, PATHOLOGY, AND TREATMENT.

Delivered in the Middlesex Hospital, during the Summer Session, 1842, *by*

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LECTURE X.

I HAVE now to direct your attention to a very severe form of scarlatina, in which the affection of the nervous system exists in its most aggravated form, and, as a consequence of the depression of the nervous powers, the secondary effects of the fever are dangerous and often fatal. One of the characteristic features of this dreadful disorder is a tendency to mortification, and the fever is apt to pass into the second stage of typhus. The form of disease to which I now allude is,

SCARLATINA MALIGNA,

or, as it is termed by Dr. Robert Williams, scarlatina gravior.

Scarlatina maligna usually makes its invasion like scarlatina simplex, or scarlatina anginosa, and runs for a few days the common course of those diseases; when, suddenly, it puts on the formidable characters which peculiarly distinguish it. At other times it exhibits from the first the more serious train of symptoms. The circumstances which appear to determine the greater severity of the disease are unhealthy constitution of the person attacked, damp and ill-ventilated habitations, and unfavourable seasons of the year.

In scarlatina maligna the prostration of nervous power is excessive, there is extreme restlessness, with periods of torpor and delirium, followed by coma or convulsions; the pulse is quick, irregular, and scarcely perceptible; respiration is rapid; the eyes are red and sunken; and from the nose there issues an irritating ichorous discharge, which produces excoriation around the nostrils; the cheeks are tumid, and their mucous membrane aphthous; the tongue, which is white in the first instance, and studded with congested papillæ, afterwards becomes brown or black, and covered with sordes, while sordes collect upon the lips and about the teeth. Sometimes from white, it becomes red, and is dry and chapped. The tongue, moreover, is swollen and tender, sometimes bleeding; the epithelium comes off with trifling pressure, and occasionally there are ulcerations on its surface. The fauces are greatly congested, of a purplish hue, and the tonsils, instead of presenting the enlarged size and bright redness of scarlatina anginosa, and being hard to the touch, are soft, intensely red or livid, but little enlarged, and covered with sloughs, or deeply ulcerated, the ulcers being ragged and foul. This state of the tonsils does not obstruct respiration and deglutition so much as the swollen fauces of scarlatina anginosa, but the breathing is equally impeded by the collection of viscid mucus in the pharynx and trachea, and is quick and rattling, and deglutition is equally interfered with by the pain and spasm which accompany the attempt at swallowing. Indeed, the tenderness of the throat is so great as to occasion pain on any attempt being made to move the jaws. The fever is also accompanied occasionally by diarrhœa and hæmaturia.

The primary fever of scarlatina maligna is of longer duration than that of the two preceding forms of disease, the cutaneous eruption not appearing until the third or the fourth day, and then being partial, indistinct, and developed in patches, or dusky and livid, and sometimes mingled with petechiæ. Dr. Sims remarks, that the whole skin, instead of being scarlet, resembled that of a dead body which had been kept for several days; or as if a mixture of blood and water were diffused under it, and could be seen through it. The continuance of the eruption, moreover, is uncertain, being sometimes evanescent, and disappearing in the course of a few hours, and in others remaining for several days. In other cases,

again, it vanishes suddenly, and reappears some days subsequently.

Willan records the following instance of scarlatina maligna, which, from the instruction it conveys, is worthy of your attention. It is a severe case terminating favourably, in consequence of the great care bestowed upon the patient, who was the child of an eminent physician; she was three years old, and had previously enjoyed good health. The disease commenced with the ordinary symptoms of scarlatina anginosa, but, on the fifth day, on the decline of the cutaneous eruption, began to assume the malignant form. At this period she became comatose; the eyes were dull and glassy; the pulse 144, or upwards, and the throat, tongue, and palate, covered with aphthæ; phlegm collected in the fauces, and produced rattling respiration; her cheeks were flushed and tumid; when roused from slumber she was irritable and and fretful, but soon relapsed into the state of torpor and insensibility. On the eighth day the right cheek and eyelids were affected with an erysipelatous tumour which closed the eye. On the ninth a thin acrimonious fluid, in considerable quantity, issued from the eyes and nostrils, producing excoriation, which was increased by constant picking or rubbing with the hands. With the appearance of this discharge the secretion of phlegm in the throat and rattling respiration ceased. On the twelfth day the arms were again covered with scarlet eruption, and patches appeared about the loins and nates. The rash declined in two or three days, but without any alleviation of the coma or febrile symptoms. Indeed, there was no material alteration until the eighteenth day of the disease, when the erysipelatous tumour began to subside, and its surface to desquamate. The pulse then returned to its usual standard; the tongue became soft and moist, although ulcerated in several places; the torpor and insensibility passed off, the child was able to sit up, and sought for amusement. On the twentieth day there was a return of the swelling of the under eyelid, but no other symptom remained excepting debility and fretfulness.

SCARLATINA SINE EXANTHEMATE.

This form of scarlatina is usually met with in isolated instances during the progress of an epidemic of scarlet fever. The disease commences with all the characters of scarlatina anginosa or maligna, and runs the usual course of those diseases, with the exception of the cutaneous eruption. It sometimes occurs in those who have previously suffered from scarlet fever, but is more frequently the consequence of deficient susceptibility on the part of the system. On a late occasion I saw, in a family affected with scarlatina, a child who appeared to have escaped the infection, and was separated from his brothers and sisters. On reaching the habitation of a relative, however, he was seized with symptoms of fever, with sore throat and inflamed tonsils, and the disease ran the usual course of a mild attack of scarlatina anginosa; but at no period was there any indication of cutaneous efflorescence.

SEQUELÆ OF SCARLATINA.

The sequelæ of scarlatina comprise some of the most important and serious of the effects of the disease, effects which are rendered doubly dangerous by their occurrence at a period when the powers of the system are reduced by the preceding disorder. Thus, the effects of the inflammation of the skin are not always confined to that membrane, but involve the subcutaneous tissue, and the vessels of the inflamed textures, relieving themselves by the effusion of the serous part of the blood, give rise to the production of œdema. Œdema is most commonly seen in the cellular membrane of the eyelids, face, and scrotum, and next in frequency in the feet and hands, where it is apt to interfere with the motions of the joints. It is attended with more pain and tenderness than common œdema, and is sometimes general. After a short duration the serous effusion is commonly absorbed, and the parts return to their natural state; but occasionally the vitality of the integument is injured, and it falls into a state of mortification. Dr. Robert Williams adverts to two cases of this nature, in one of which the toes of the right foot had sloughed off, and the integuments of the leg had mortified. In the other the mortification commenced in the upper lip, and spread to the face.

In some instances the œdematous state of the cellular tissue comes on gradually after the convalescence of the patient, usually at the expiration of two or three weeks; it is accompanied by symptoms of general constitutional disturbance, and appears to be referrible to the transfer of inflammatory action to the structure of the kidneys. Two cases of anasarca after scarlatina are related by Mr. Simpson, of Stamford, in THE LANCET for July 17, 1841, in which the effusion into the cellular tissue was attended with convulsions.

The serous and synovial membranes are also liable to inflammatory disorder as a consequence of the morbid agency of the poison of scarlet fever. Effusions are apt to take place into these cavities, and urea has been found in the tested fluid. The latter fact points strongly to the kidneys as the cause of the disorder, and additional proof of their morbid state is deduced from the circumstance of the urine being brownish in colour, from admixture with blood, and more or less impregnated with albumen.

The general morbid tendency of the fluids of the body, acting as an irritant to the vessels through which they pass, occasionally involves the lymphatic system, and especially

the glands, in the secondary disorder. Under the influence of this disorder the lymphatic glands become inflamed and enlarged, and in debilitated systems are apt to terminate in suppuration and abscess, destroying the patient eventually by prolonged irritation.

The mucous membranes, as may be inferred from their early participation in the disease, are among the tissues the most frequently affected with sequelæ of the chronic kind. Thus, chronic ophthalmia, chronic suppuration from the meatus auditorii and Eustachian tubes; ulcerations of the mucous membrane of the nose; aphthæ of the buccal cavity; ulceration and thickening of the lips; and chronic inflammation of the salivary glands, are frequent secondary effects of scarlatina. When the Eustachian tubes are the subject of inflammation the tympanum and labyrinth may participate in the disease, and loss of hearing result; while the inflammation of the conjunctiva, by inducing opacity, may occasion blindness. The mucous membrane of the air-passages and alimentary canal also exhibit the passing effects of the morbid action; in one case bronchitis is left behind; and in another chronic diarrhœa. The genito-urinary membrane has been already alluded to as the seat of the disorder of the kidneys, and the testes are also occasionally involved in the mischief.

Diagnosis.—We may now inquire, What are the pathognomonic characters by which we may distinguish scarlatina from every other disorder? They are, the affection of the throat, attended with symptoms denoting fever of a serious kind; the early eruption upon the surface of the body of a scarlet rash; and, thirdly, the speciality of the rash. It is true that we have seen cases in which the affection of the throat has been absent, but in those cases the other two conditions were present. Again, we have seen that the rash itself may be wanting, but then the cynanche was too conspicuous to lead to doubt. You will distinguish the sore throat of scarlet fever from ordinary cynanche, by the quick, weak, irregular pulse of the former, and the prostration of the nervous power. The considerable enlargement of the tonsils in scarlet fever is also a conspicuous character.

From measles you may distinguish scarlet fever by negative and positive signs; namely, by the absence of coryza and intolerance of light, sneezing, cough and expectoration; by the early eruption of the rash: in scarlatina it occurs on the second day of fever, while in rubeola it is protracted to the fourth; next by the appearance of the efflorescence: in rubeola it occurs in small crescentic or annular patches, and is of a raspberry-red colour; but in scarlatina the patches are of larger size, and frequently the redness is uniform, of a boiled-lobster-red, afterwards assuming a tint of lake. The redness of both eruptions disappears under pressure with the finger.

Other differences between these allied eruptive fevers are the œdema and anasarca, the gangrene of the integuments, and the affection of the joints and serous membranes of scarlatina. In scarlet fever, also, the exfoliation of the epidermis is more complete, and takes place in laminæ, which are sometimes of large size; moreover, scarlatina is less contagious and infectious than rubeola.

Scarlatina sometimes puts on an appearance which renders it liable to be mistaken for measles, particularly when accompanied by any inflammatory state of the eyes or nose from ordinary catarrh; I refer to its occurrence in smaller patches than usual, in which the punctated character of the eruption in its primary state is more than usually perceptible. This form of scarlet fever has been noticed by French physicians under the name of *scarlatine piquetée*. Probably this form of the eruption may be an explanation of the cases reported under the designation of scarlatina and rubeola existing together.

Causes.—Scarlatina, like rubeola and variola, is a native of the East, first made known to us by the writers of the Saracenic school, and transmitted to Europe by the Crusaders. No account of a disease analogous to scarlet fever appears in the holy writings, whence we infer the non-existence of the disease in Syria and Egypt at the period which those writings describe, and its consequent origin at a posterior date. It is possible that the disease may have been prevalent in India previously to this time, and that its outbreak in Assyria may have resulted from the transportation of the infection by the winds. But, even if by this argument we shift our arena of inquiry to India, we must eventually arrive at the commonly received opinion, namely, the origin of the fever in a local and unknown cause. The infection of scarlatina is an acknowledged axiom, and the infecting distance is undoubtedly considerable, although not determined by observation. It is communicable by fomites of every description, hence the greatest caution is necessary to be employed in regard of articles of clothing which have been used by the infected person, and also of substances of different kinds which have remained for any time in the infected atmosphere of the sick-chamber. By want of caution in these particulars the spread of an infectious disease is greatly increased during the prevalence of an epidemy. Scarlet fever is sometimes conveyed from the chambers of the rich to the dwellings of the poor by such fomites; and, on the other hand, the clean linen of the laundress may be the means of transmitting the infectious poison to the persons of the sound. The period at which infection is developed is a question often put to the medical practitioner for solution. Scarlatina is infectious

from the first moment of the existence of constitutional symptoms, for these are the workings of the poisonous ferment; and a convalescent is capable of communicating the disorder for at least three weeks after the decline of the eruption. Hence the necessity of secluding your patients and preserving strictly that seclusion for a month after the close of the disorder, that is, if you wish to limit the propagation of the fever. In cities the body-clothes and bed-clothes of the patient should be immersed in cold water as soon as they are removed from the apartment, and afterwards fumigated in an empty room with chlorine; while, in the country, the clothes, after immersion in water, must be dried and thoroughly aired in the meadows, at a distance from habitations, or in such a situation as will enable the winds to convey the noxious poison away from the immediate seat of human residence. Willan has stated his belief that a nurse who had received the vapour of the lungs, the phlegm from the throat, or the discharge from the nostrils on her clothes or pocket handkerchief, is in a condition to infect a child whom she may afterwards attend or caress. Dr. Sims has remarked that the infection of scarlet fever has remained in the apartments of the house for several weeks after the family had recovered from the disease. And Dr. Robert Williams reports the statement of Dr. Cock, that he had traced the irruption of scarlet fever in St. Bartholomew, during the years 1829, 1830, to a direct importation of fomites; for a family who had suffered from the fever during their passage from America, landed at the island and communicated the disease to the persons who received them. Dr. Murray, in like manner, referring to the prevalence of an epidemy in Aberdeenshire, observes that he had seen several instances in which midwives conveyed the scarlet fever to the patients whom they attended.

The contagion of scarlatina has been illustrated by experiments made with a view to induce a milder form of disease than that which commonly prevails. These experiments have been unsuccessful in their object, but have furnished proof of the transmissibility of the disease by the inoculation of the blood of the infected patient.

Scarlatina is most prevalent among children and young persons, but instances frequently occur in which adults are affected. Puerperal patients appear to be peculiarly susceptible of its influence, and in the state of debility in which they are the disease is attended with great danger. An attack of scarlatina offers a similarly salutary boon to its subject with the other eruptive fevers; namely, protection from subsequent infection. Indeed, susceptibility for the reception of the poisonous principle seems more completely exhausted by scarlatina than by other infectious diseases. Nevertheless, instances occur, and have been seen by many practitioners, of a recurrence of scarlet fever.

The predisposing causes of scarlet fever are a cold and moist state of the atmosphere, dampness, want of cleanliness and ventilation of dwellings, and every circumstance that may tend to produce a depression of the powers of the nervous system. These conditions constitute the medical constitution of scarlatina; and you will always find the disease most extensive where they are present. Hence the common prevalence of the fever among the poor, and in the narrow and dirty streets and filthy interiors of the lower classes in many parts of London and other large cities and towns.

Scarlatina commonly makes its invasion epidemically, aided by the predisposing influences above stated, and spreads with amazing rapidity. The seasons favourable to its extension are those in which cold and moisture most prevail, as spring, autumn, and mild winters. In some situations scarlatina does not recur for several years, and in these instances it would seem that the tendency to the reception of the fever having become exhausted in the majority of the inhabitants of such places, the disease does not return until a fresh race of uninfected arise.

It is deserving of remark that the disease is not always confined to the human race. An epidemy of angina pseudo-membranosa, with the cutaneous efflorescence in the minority of cases, a disease which I take to be a scarlatina anginosa, with scarlatina sine exanthemate, was lately reported to the Academy of Medicine, as occurring annually at Lion d'Angers, during the first six months of the year. And during the prevalence of this epidemy it appears that horses suffered from a similar affection; colts from acute enteritis; and cattle, sheep, and pigs, from phlyctenoid fever; the latter disease being very probably the epizootic which occasioned so much devastation in England during the past year.

Prognosis.—When scarlet fever exists in a mild form, its prognosis is favourable, and the same may be said of the disease when the prevailing epidemic is marked by the character of mildness. But scarlatina, from its nature as a morbid poison, and from the number and extent of the tissues liable to become affected, always calls for caution in your opinion, and vigilance in your medical superintendence. I have before remarked that the nervous powers are sometimes overwhelmed by the poison at the outset of the disease; and the effect of the shock can be compared to nothing so similar as the instant abrogation of nervous life by the electric stroke. In infants the disease is commonly fatal on the seventh or eighth day. In children, if the fever set in with delirium or convulsions, death may occur on the fourth or fifth day; dentition is an unfavourable com-

plication; and delirium in the adult, at an early period of the disease is a dangerous and often a fatal symptom. To puerperal patients, again, the disorder is peculiarly fatal, and in pregnant females it determines miscarriage.

Retrocession of the rash is at all times a symptom of serious portent, and the more so when the brain or the lungs are the organs affected by the repercussion. Other indications of danger are, a fluttering rapid pulse; a brown tongue; acrid discharges from the nose; sloughing of the fauces; abscesses in any of the glands; obstinate diarrhœa and mortification of the integument. The affection of the joints is a serious but not a fatal symptom. Hæmorrhage from the nose at the commencement of the eruption is regarded as a favourable sign.

The mortality from scarlet fever is subject to considerable variation; different years giving very different results. Thus, according to Dr. Gregory, during the year 1837, the number of deaths from scarlatina in London averaged 836; in 1838 they were 1524; in 1839, the most severe epidemic ever known in London, the average number was 4264; and in 1840, 2238. In the first week of the month of December of 1839, there were no less than 82 deaths. Dr. Gregory closes his remarks on the mortality of scarlet fever with the observation that the violence of the disease falls almost wholly on the young.

HINTS FOR THE TREATMENT OF SCARLATINA.

To the Editor.—Sir: As scarlatina, &c., are the result of poisons inhaled into the blood, and as those poisons, whilst floating in the atmosphere, are destructible by chlorine gas, it has occurred to me that they may also admit of being destroyed by the *continued inhalation* of the same gas, admixed in moderate proportion with the atmospheric air. At any rate, such an admixture of chlorine gas with the air of the invalid apartment would be wholesome to the patient, and protective of others. In addition to the chlorine gas diffused in the atmosphere, water, with a slight addition of chlorine, may be taken as a beverage for thirst and the condition of the throat, and may be used for ablution of the general surface. I am, yours,

PHILANTHROPOS.

London, Dec. 15, 1842.

FATAL EFFECT OF ADMITTING AIR INTO THE VEINS.

A MAN, 58 years of age, was received into one of the French hospitals, in October last, with a scirrhous tumour on the left side of the neck, extending from a little above the clavicle to the lower jaw, in the space between the larynx and the sterno-mastoid muscle. The strength of the patient was wearing away under continual vomitings of bloody mucus, and the lancinating pains felt in the tumour, the removal of which was resolved on. The man having been laid in a horizontal posture, his head turned towards the right side, the tumour was exposed in its whole extent by a crucial incision, and the flaps dissected aside, partly with the scalpel and partly by means of the finger. The tumour was readily separated from most of its adherences without the exertion of much force. The arteries divided were speedily tied, the loss of blood was inconsiderable, and the operation appeared to promise a satisfactory termination, when the internal jugular vein became penetrated with the end of a scalpel, so as to admit a quantity of air. At the same moment, says the operator, who reports the case in the "Gazette des Hopitaux," Nov. 8th, "I heard, progressing from the wound towards the heart, a peculiar noise—a sort of *glou-glou*—a sound which, once heard, can never afterwards be mistaken." The patient instantly turned pale, his breathing became quick, he uttered a plaintive cry, with the exclamation that he was dying, and scarcely a minute elapsed before he was actually dead. The operator, as soon as possible, placed his finger over the place of the wound, though without any good effect. He, however, retained it in that place for several minutes, and noticed that a flux and reflux movement continued in the vein for five or six minutes after life was extinct.

A post-mortem examination was made twenty-four hours afterwards. A gaping oblong-shaped opening, about two-tenths of an inch (six to eight millimetres) in length, was met with in the jugular vein, three-quarters of an inch above the subclavian, and at a point where the tumour was found to be adherent to the coats of the vein. Blood pressed upwards, and made to exude through this opening, contained numerous globules of air. Air-globules were found in great quantity mixed with the blood in the right auricle and ventricle, the parietes of which were distended, and their contents of a colour decidedly less dark than venous blood generally. The blood in the superior cava, subclavian, axillary, and brachial veins, and those on the interior of the cranium, also contained air, as did a frothy fluid in the iliac arteries and aorta. The left ventricle and the cerebral sinuses were empty. It may be remarked, that death, in this case, happened earlier after the puncture than on any of the many occasions recorded by Amussat, Magendie, &c., doubtless, in consequence of the close proximity of the internal jugular vein to the centre of the circulation.

LIEBIG,

HIS CHEMISTRY AND REVIEWERS.

BY

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No. VI.

THE distinction which Liebig makes between

Nitrogenised and Non-Nitrogenised Food

is one of the most important generalisations contained in the work. From the earliest period of physiology as a science articles of diet were primarily referred to the animal or vegetable kingdoms of nature, and it was believed that some essential difference exists in their nature and nutritive powers as derived from one or the other of these sources. Indeed, volumes have been written and controversies have been maintained, to explain and reconcile the apparent anomalies which occur, according to this view of the case, in the habits of diet adopted, either by choice or compulsion, by individuals or races among mankind. If Liebig's views are founded in truth the greater number of these anomalies are now cleared up. Prove them to be correct, and our principles of dietetics will admit of revision, and, moreover (what is much required), of great amplification. Altogether, this part of the subject calls for the strictest attention and scrutiny.

Liebig states that every organised part of the body contains nitrogen, that we have no evidence whatever of any power within the body capable of producing this element, and that accordingly it must be derived either from the food or from the atmosphere. Thus far he agrees with other physiologists.

He denies that nitrogen is derived from the atmosphere, and since this is believed by some to be one of the most vulnerable parts of his whole theory of the uses of food in the animal economy, we will investigate it, in the first place, as a separate question.

The high authority of Sir H. Davy is in favour of the absorption of nitrogen during the process of respiration. His experiments were made upon himself, they are contained in his "Researches concerning Nitrous Oxide," published in 1800 (p. 429); they are numerous; several are given in detail, and they are apparently decisive of the question. Dr. Priestly had previously arrived at the same conclusion, and it has been subsequently supported by Pfaff, Edwards, and others.

On the other hand, Berthollett, Nysten, Dulong, and Despretz,* detected an increase of nitrogen in air which had been respired, from which they infer that nitrogen is exhaled during respiration. Despretz's experiments are as decisive on this side of the question as those of Davy on the opposite side. Liebig is in this category; he admits the exhalation of nitrogen, and points out what he believes to be its source. Numerous experiments have been made *pro* and *con* the question of the

Absorption of Nitrogen Gas in the Lungs.

Allen and Pepys found that when guinea-pigs are made to breathe in a mixture of hydrogen and oxygen, nitrogen is exhaled, and in natural respiration they found neither increase nor diminution in the air respired. Edwards and Collard endeavours to reconcile all the discrepancies by supposing that nitrogen is simultaneously absorbed and exhaled, sometimes the one process and sometimes the other being most active, an idea which Berzelius regards as absurd. Müller asserts in one place (page 310, ed. 1, Baly), "the conclusion to be deduced from all these experiments seems to be that during respiration nitrogen is both absorbed and exhaled by the blood;" and in another place (page 149), "the proportion of nitrogen in the air respired is not essentially altered."

Dulong found, as a result of seventeen experiments, that in fifteen nitrogen was exhaled, in one this gas was absorbed, and in the remaining two cases the proportion of nitrogen in the air respired was unaltered.—(*Ann. de Chimie*, Avril, 1841.)

There is another set of experiments somewhat in favour of the absorption of nitrogen during respiration. Dr. Reid Clanny and Magnus detected this gas both in arterial and venous blood: according to the experiments of the former, arterial blood contains the largest proportion. Arterial blood, in two out of three experiments by the latter, and in a third, venous blood from the arm, contained the most.† Little, however, can be inferred from these results, blood, like other liquids, being capable of absorbing nitrogen,‡ and it being probable that free nitrogen is contained in the intestines, portal blood may convey the surcharge of nitrogen into the arterial blood from the alimentary canal. Dr. Pereira has suggested that the ammonia of the atmosphere may furnish nitrogen to the system, but we are at present in possession of no experimental proof whatever of this.

Even although no doubt be admitted of

* Müller Physiol., by Baly, p. 309.

† Lectures on the Blood, LANCET, 1839-40, vol. i., p. 751.

‡ Liebig; also Brande's Chemistry, 5th edit., p. 392.

the absorption of nitrogen in the individual case of Sir H. Davy, it cannot for one moment be assumed as proved that this element is uniformly, or generally, received into the system in the process of respiration. If, indeed, this were established as a fact, it would not follow that the nitrogen so absorbed is employed in the nutrition of the tissues, nor would the fact militate so much against Liebig's views as Dr. Periera and others believe.* It should here be remarked, that Liebig's expression is the following:—"No nitrogen is absorbed from the atmosphere in the vital process."—(Page 43.) To those who have considered his opinions as a whole, it will appear by no means to follow from this expression that he disputes the occasional or even constant absorption of nitrogen by the blood, since he regards the blood in a great measure, if not wholly, as a chemical fluid, the expression here quoted undoubtedly referring to the vital process of growth or reproduction in the living structures. Recurring, then, to the main subject, namely,

The Necessity which exists in the Animal System for the use of Nitrogenised Food,

we have the well-known experiments of Magendie, Tiedemann, and Gmelin, which prove that non-nitrogenised aliment alone is incapable of supporting animal life; even a diet of food very sparingly supplied with a nitrogenised principle leads to disease and death. Negroes, if fed entirely upon potatos, soon fall into disease, and the planters in the West Indies find it necessary to allow them milk and bread, which prevents it. The same observation applies to the Irish, among whom inhabitants of whole districts have been affected with dropsy and other cachectic maladies in consequence of a diet almost exclusively non-nitrogenised.

In proof that it is the food, whether animal or vegetable, which furnishes the system with nitrogen, and that the whole of this element is derived from the one source, we have before us, in Tables I. and II., the elementary and proximate constituents of our ordinary materia alimentaria. By an examination of these tables it appears that the nitrogenous constituents of all kinds of food contain nearly as great a proportion of this element as any of the animal tissues, and with respect to some of the most important tissues exactly the same proportion. No one will deny that muscles, nerves, membranes, vessels, and bones, require nitrogen for their nourishment; but none of these structures contains more than 18.7 per cent. In fact, they are generally composed of from 15 to 16 per cent. Proteine contains just the same proportion, and by the discovery of this organic principle we learn not only that vegetable as well as animal nutriment contains nitrogen, but that in both this element is in exactly the same state of combination. That the nitrogenised constituents of the food are, in fact, formed upon a basis identical in composition with that of the principal constituents of the blood and of many of the organised tissues; from which it appears to me fair to infer, not only that the nitrogen is derived from the food, but, in the absence of all proof to the contrary, that it is already combined in the food, and that the basis of the combinations of nitrogen is formed by the vital force in plants only; the business of the animal functions and of some of the more highly animalised structures being to build, as it were, upon this basis. This is the conclusion to which Liebig's investigations have led him: this is the inference drawn from the fact that the nitrogenised principles of wheat, rice, sugar-cane, fruits, milk, eggs, and flesh, are all modifications of the compound

$$C_{18}\,H_{36}\,N_6\,O_{14},$$

or proteine, and that the albumen and fibrin of the blood, muscles, and other constituents of the body, are all constructed upon the same chemical foundation, and furnish formulæ to the analyst of which this may be regarded as a highly complex organic radicle.

If the whole of the nitrogen employed in nutrition be derived from the food, then the quantity of nitrogen in the food ought to be equivalent to all the nitrogen eliminated by the excretions, supposing in a given time there to be as much old tissue separated as there is new tissue assimilated. Liebig brings forward some admirable experiments made by Boussingault, proving this to be the case. The whole of the nitrogen contained in the food consumed by a horse in twenty-four hours was 2152 grains nearly; the whole of the nitrogen contained in the excretions of a horse in twenty-four hours was 1781 grains nearly; leaving 371 grains more received into the system with the food than excreted by urine and stool. The dissipation of this excess is easily accounted for by the pulmonary and cutaneous secretions, which contain nitrogenised animal matter that could not be taken account of in the experiment. The whole of the nitrogen contained in the food consumed by a cow in twenty-four hours was 3111 grains nearly; the whole of the nitrogen contained in the excretions of the cow in twenty-four hours, including the milk, was 2694 grains nearly, leaving an excess of 417 grains. In the face of all these considerations, I do not think my chemical friends who are sceptical as to the non-absorption of nitrogen during respiration, can expect us to reject Liebig's doctrine, without bringing forward new experiments to prove not only the absorption of nitrogen in the lungs, but the assimilation of that element as derived from the lungs, in the

* Pharmaceutical Journal, vol. i., p. 179.

vital process, that is to say, in the living structures.

These considerations, I think, fully establish the significance in dietetics of the distinction drawn between azotised and non-azotised aliments; they also prove the importance of knowing the relative proportions of the various definite principles which compose different species and varieties of food. The greater part of our information on this subject is contained in the first table attached to these papers; but a plan has been lately adopted of measuring the relative nutritive powers of substances simply by the quantity of nitrogen which they furnish on analysis. This plan has its utility, and, to a certain extent, gives the information required, but we must not be misled to suppose that it is exact. It is of importance to ascertain what is the state of combination in which the nitrogen exists. I conclude this part of the subject with the following statement from Boussingault and Bœckmann of

The Proportion of Nitrogen found in 100 *Parts of various Alimentary Substances,*

without regard to their proximate principles. The quantity of nitrogen contained in the latter is shown, together with the other elements, in Table II., page 391:—

Roasted venison (nitrogen per cent.)		15.23
———beef	„	15.21
———veal	„	14.70
Horse-beans dried at 212°	„	5.5
White haricots, do,	„	4.3
Peas dried (in vac.) 230°	„	4.2
Milk dried ($\frac{17}{100}$ water)	„	4.
Cabbage dried at 212°	„	3.70
Carrot dried, do,	„	2.40
Wheat dried (in va.) 230°	„	2.2
Oats, do, do,	„	2.2
Turnips dried at 212°	„	2.2
Barley, do,	„	2.02
Indian corn, do,	„	2.
Potatos dried, do,	„	1.8
Rye dried (in vac.) 230°	„	1.7
Jer. artichokes, do, do,	„	1.6
Rice dried at 212°	„	1.39
Potatos, do,	„	1.2
Potatos, fresh,	„	0.37
Do. kept ten months	„	0.28
Cabbage, fresh	„	0.28
Turnips	„	0.17

It is obvious that the degree of moisture or dryness must have materially influenced the results in some of these analyses.

Having thus placed before my readers the state of the question as to the absolute indispensibility of azotised food for the growth and reproduction of the animal tissues, and the strong grounds there are for believing with Liebig that certain definite compounds of nitrogen only are calculated for the support of the organised structures, these compounds being all originally formed by the vital force, as exercised in vegetable nature, we are led to a consideration of

Liebig's important Theory of Nutrition.

In accordance with facts, generally known and admitted, Liebig remarks, that the true starting point for all the tissues is *albumen*. All nitrogenised articles of diet are converted into albumen before they can take part in the process of nutrition, and in the stomach this albumen must become soluble before it is capable of entering into the circulation. I have already explained wherein the author's theory of digestion differs from that generally adopted in this country.—(Paper V., p. 421.) He believes that the insoluble compounds of proteine are first rendered soluble by a transformation of elements produced by the animal matter of the gastric juice, and the oxygen introduced into the stomach with the saliva, and that they are then dissolved, the transformation being analogous to the processes of eremacausis and fermentation described in Paper III., page 311. For the purpose of clearness of exposition I shall confine myself strictly, in the first place, to a consideration of

The uses of the Azotised Principles of Diet in Assimilation, and their Progress through the Economy,

as a question distinct from that of the uses of the other principles of which food is composed, with the metamorphoses to which they are subjected.

The nutritive process is seen in its simplest form in the carnivora; they live upon animal blood and flesh identical in composition with their own; this food of blood and flesh is also originally derived from blood. It is, in the first place, reconverted in their systems into blood, and then into the different tissues which form a part of their organisation. Thus, in a chemical sense, a carnivorous animal consumes itself.

When a serpent, for instance, swallows an entire animal, or a mass of animal substances, all the soft parts disappear from the alimentary canal: the hoofs, horns, feathers, and bones, are expelled unchanged; fæces, properly so called, do not occur. A pure white substance resembling chalk, consisting of urate of ammonia, with a small quantity of carbonate and phosphate of lime, is eliminated by the urinary organs, and the urate of ammonia contains nearly all the nitrogen of the animal substances which have been digested.

The animal substances consumed (flesh and blood) contain

$$C_{48}\ N_6\ H_{39}\ O_{15}$$

(Table II.); that is to say, as much as eight equivalents of carbon to one of nitrogen. The urate of ammonia of the excrements

$$C_{10}\ N_5\ H_7\ O_6$$

contains only two equivalents of carbon to one of nitrogen, and the fundamental question at once occurs, What becomes of the remaining six equivalents of carbon originally

combined with each equivalent of nitrogen in the food consumed?

There is only one answer that can possibly be given to this question, viz., that it is eliminated by the lungs and skin, being given out by these emunctories in the form of carbonic acid gas.

A similar observation applies to the hydrogen; the food of flesh and blood is composed of six times as much hydrogen, in proportion to its nitrogen, as urate of ammonia. The whole of this excess of hydrogen must be eliminated as water: accordingly, in these animals all the carbon and hydrogen received into their systems with their food, beyond that which is found in their excrements, is burned and eliminated in the form of carbonic acid and water.

Nothing could be further from the true interpretation of nature than to imagine that the elements of the flesh and blood of the food for the time being are the same as those eliminated: this would be making the production of excrementitious substances the sole object of food. Food is converted first into blood, and then into the organs and tissues, for the purpose of supplying the waste of matter in the ordinary exercise of the functions of life; but in the adult, where growth is not going on, and the body returns to its original weight in a given time, a quantity of material must be separated from the structures equal to that assimilated; it is the molecules of the matter separated which form the urate of ammonia, or are consumed by eremacausis, that is to say, burnt and eliminated in the forms of carbonic acid gas and water.

The old materials cannot remain in the tissues from which they are separated, they are all soluble compounds, and are received into the circulating blood. Neither can they again be employed in the reproduction of the tissues from which they are derived; organs for their elimination, the liver, lungs, skin, and kidneys, are accordingly provided. The molecules separated from the tissues form entirely new compounds under the influence of the chemical forces, no longer modified or overcome by the vital force, and they are now subject to metamorphoses and transformations analogous to those observed in organic substances removed from the living body.

The compounds which contain the nitrogen of the dead tissues are, for the most part, separated by the kidneys; those which contain the remaining carbon and hydrogen pass off by the lungs and skin; but, as respects the latter, their passage outward is not direct, is not immediate upon their separation from the tissues; having re-entered the circulation they are destined to serve a further purpose in the animal economy before their final elimination as carbonic acid gas and water takes place. This brings us to the important subject of

The Origin of the Bile.

Confining our inquiry still to azotised diet and to nutrition in its simplest state, as it occurs in the carnivora, it is a fact that in serpents and other animals of this class none of the bile appears in the excrements; the whole of this fluid is reabsorbed from the intestinal canal. Now, the bile is a compound of soda rich in carbon, and in the carnivora the elements of the bile, except the soda, disappear. Carnivorous animals are remarkable for the small quantity of soda expelled in their urine; in the boa constrictor, for instance, scarcely a particle has been met with; they receive with their food only as much of this alkali as is essential to make up for the change of matter in nutrition. When the food contains less than suffices for the production of new blood, they evacuate little or none; when the soda of the food is in excess it is expelled with the urine in the form of a salt. But with respect to the other elements of the bile, except the soda, there is no means whatever of excretion but by their union with oxygen, and their passage through the lungs and skin.

We know, then, certainly, that the nitrogen from the metamorphosed tissues in these animals passes out of the system by the kidneys as a useless excrement. The bile is a compound of soda rich in carbon, and miscible with water in every proportion; it passes into the duodenum and mixes with the chyme; it must be reabsorbed, since the excrements contain not a particle of bile; its soda, when there is more in the economy than necessary for the continued formation of blood and bile, is evacuated also by the kidneys; but its carbon does not appear in the fæces or urine. Its carbon must accordingly be eliminated by the lungs or skin, in the shape of carbonic acid, after union with oxygen. The same may be stated of the hydrogen; hence the carbon and the hydrogen of the metamorphosed tissues are first formed into bile, then received back into the circulation, and ultimately eliminated in union with oxygen in the forms of water and carbonic acid gas.

Proofs of the origin of the bile as well as of the urine in the metamorphosed tissues, are furnished by the author in the facts that in hybernating animals, who receive no nourishment, the secretion both of bile and urine continues, and in animals starved to death, who accordingly receive no food, the gall-bladder is found full and distended. The urine of dogs fed for weeks upon sugar contains as much urea as when the same animals are in health.

In birds, amphibia, mollusca, and insects, the excretions consist of compounds, such as uric acid, urea, and urate of ammonia, containing a far greater proportion of nitrogen, and a far smaller proportion of hydrogen and carbon, than the proportions of these elements contained in their food; so that there

would appear to be an universal law by which compounds of carbon and hydrogen are retained in the system for ulterior purposes after the separation of the nitrogen by the action of the kidneys.

Liebig states very fairly (page 132), that if it be true that the urine and bile contain the products of the metamorphosed tissues, the chief constituents of these two fluids added together should be equal to the plastic elements of nutrition; that is, to the component parts of the blood employed in nutrition.

But since oxygen, and water or its elements, are unquestionably added to these products in the processes which occur within the economy, we have no means of testing this point in a direct manner as regards the oxygen and hydrogen. With respect to the carbon and nitrogen, there is no difficulty in doing so; the relative proportions of these two elements must be the same as in blood.

The plastic elements of nutrition, which Liebig in various parts of his work designates as "Blood," or muscular flesh when in a dry state and reduced to a pulverisable mass, are represented according to the analysis of Playfair and Bœckmann (Table II.) by the empirical formula,

$$C_{48}\ N_{6}\ H_{39}\ O_{15}.$$

It is a fact also determined by Demarçay, and now recognised by chemists generally, that the chief constituent of bile, the picromel of Thenard, and the biliary matter of Berzelius, is an oily acid which occurs in combination with soda. This acid is known as choleic acid, and its empirical formula being

$$C_{76}\ N_{2}\ H_{66}\ O_{23}.$$

Add to the elements of the urine of serpents half the numbers which represent the formula of choleic acid,

	C	N	H	O
1 urate of ammonia	10	5	7	6
½ choleic acid	38	1	33	11
	48	6	40	16

We then have the composition of blood, with the addition of one equivalent of water and one of oxygen, thus,

	C	N	H	O
From	48	6	40	17
Take			1	2
Remainder	48	6	39	15

Being the empirical formula of the elements of nutrition.

Again, if we add three equivalents of water to the elements of the essential azotised constituent of the food, proteine, we obtain the same formula, with the exception of one equivalent of hydrogen.

	C	N	H	O
Proteine	48	6	36	14
3 Water			3	3
	48	6	39	17

Here we have a beautiful chain of chemical reasoning to prove that in serpents (and the case holds good in the lower classes of amphibia, and, perhaps, in worms and insects), the elements of the bile and urine, taken together, are equivalent to the elements of the metamorphosed tissues; that they are equivalent also to the plastic elements of nutrition in the blood; and, lastly, that they are equivalent to the nutritive principles contained in the animal's food. Thus, in the simplest form of nutrition, as it occurs in strictly carnivorous animals, it would appear that the plastic elements of the food (albumen, gluten, and casein) are first formed into blood; they are then assimilated by the tissues; they are afterwards separated from the tissues, and split up, as it were, by the chemical forces into new compounds. One series of these compounds, represented by urate of ammonia, is excreted by the kidneys; another series represented by choleate of soda, is secreted by the liver; the latter compounds are manifestly reabsorbed from the intestinal canal, and their hydro-carbonaceous materials must be ultimately consumed by eremacausis, and separated in the forms of carbonic acid gas and water. It will be observed in this enunciation that no opinion is advanced as to whether the products of the metamorphosed tissues are formed into urate of ammonia and choleate of soda at the period of their separation, or not until they reach the secreting organ.

I have been thus particular in presenting this subject as distinctly as lies in my power to the minds of my readers, because it is employed by Liebig as one amongst several analogical arguments to establish his doctrine of the origin and use of the bile in the human subject, as well as to illustrate his general theory of nutrition.

The above reasoning is irrespective of the quantity of bile secreted by the liver in carnivorous animals, of which we have absolutely no data whatever.

The question of the use of the biliary secretion I have left untouched in the present paper. Separate considerations also apply to the subject of gelatin as an article of diet and nutrition, which will be investigated as we proceed. It may be here stated, that the results obtained by Liebig in his attempt to develope analytically the metamorphoses which occur in the animal body, have surprised himself as much as they will others. —P. 131. "They are not the creations of fancy," but are given by him especially because he entertains the deep conviction that the method which led to them is "*the only one by which we can hope to acquire an insight into the nature of the organic processes.*"

CASES OF, AND OBSERVATIONS UPON,

PARALYSIS,

SYMPTOMATIC OF DERANGEMENT OF

THE GANGLIONIC OR SYMPATHETIC SYSTEM.

By WM. WATTS, M.D., Nottingham.

(Concluded from p. 431.)

CASE 10.—Jan. 18, 1837. F. Wood, ætat. 66, of spare and temperate habits, states that on awaking on this morning he did not feel very well; could not eat any breakfast, but lit his pipe, and went out, thinking he should soon be better. Continuing to feel ill he was returning home, when his vision suddenly failed him (he afterwards said he could not *see at all*), and he fell to the ground. He appeared insensible, but told me afterwards he understood every word that was uttered by those about him. On being carried home and put to bed he burst into a violent fit of crying, lasting for several minutes; it was after this that I saw him. The head was cool, face pale; was sobbing much; the pulse was weak, and rather indistinct. He complained of a numbness and tingling throughout the right hemisphere, and when touched or pinched on that side does not experience any pain, nor does his countenance express any indication of suffering. His daughter states that for some time past he has been in a low, desponding way, and has threatened to commit suicide. —℞. *Spirit of sulphuric ether*, 3iij; *spirit of sal volatile*, 3ij; *compound tincture of lavender*, 3ij. Mix. Take one drachm every ten minutes in a cup of water, until the paroxysm abates. Half an hour after the fit had ceased a purgative was exhibited, and continued until the bowels were freely moved.

Seven, p.m. Is much better; the bowels have been very freely moved; the dejections were dark, slimy, and very offensive; still complains that he has no feeling in either the right upper or lower extremity; vision is indistinct; has tinnitus aurium and globus; the motion of the right side is perfect. Repeat the purging mixture.

21. Had a good night; feels low; has been freely purged; sensation in right side improving, though not so good as yesterday before the attack—℞ *Spirit of sulphuric ether*, 3iij; *compound tincture of lavender*, 3ij; *ammoniated tincture of valerian*, 3iv; *water*, ℥v. Mix. One ounce every three hours.

22. Sensation in the right side is returned perfectly; is now quite well, and wishes to discontinue medicine.

CASE 11.—Oct. 21, 1840. I was suddenly called at half-past nine, a.m., to Joseph Hunt, ætat. 65, of spare habit, who had lost his speech. He was cold; countenance pallid; perfectly sensible, understanding everything said to him, but utterly unable to reply. By signs he complained of pain in the head. After he had been put into a warm bed, and rallied by means of stimulants, he was ordered the house-mixture till purged. The loss of utterance continued until four in the afternoon, when he began to recover it gradually, and when I saw him again at eight, p.m., he could speak as well as usual. He had breakfasted on bread-and-milk-pottage, and afterwards went into the men's yard, where, feeling himself very cold, he returned to the sitting-room fire; while by it he was seized with vertigo and loss of speech, and would have fallen off the bench had he not been supported. He states that about nine months back, while in the men's sitting-room, he became fainty; he went to the door for air. Feeling as if he should be purged he went on to the privy; while there he suddenly lost his speech, and was more than an hour before he recovered it. Including the present, he has had five such attacks. Complains frequently of having darting pains in the right temple and across the brows; often loses his eyesight; frequently has strong inclination to shed tears; has much globus on the least excitement; also tinnitus aurium, palpitation of the heart, pains in the loins, and coldness of the extremities; his sleep is disturbed with frightful dreams, in which the fear of falling from some height is a constant attendant; is most liable to the attacks in cold weather.

22. Has been very freely purged; the stools were dark, slimy, and offensive; feels quite well, and wishes to leave the hospital. Discharged.

CASE 12.—Nov. 5, 1839. Sarah Bramley, ætat. 38, married, has had two children; states that about two months back, while sweeping the floor, at three, p.m., she suddenly lost all use of the right arm, from the shoulder downwards, so that the brush fell from her hand; the arm fell powerless by her side; she noticed it was considerably colder than the left arm. This state lasted for a few minutes, and was followed by a tingling from the tips of the fingers to the shoulder; the arm became warmer; and in a quarter of an hour she had fully recovered the use and feeling in the hand and arm. The same afternoon, while pouring out her tea, the use of her hand and arm left her again, and she dropped the teapot; this attack lasted an hour, and subsided in the same way as the first. She had five attacks on that day. When the arm was in this paralysed state it became deadly cold, and although she rubbed it with hot flannels, she could not "bring life into it for some time." From that time to the present she had not experienced anything of the kind. To-day, while out on an errand, she felt the use leave her right arm; she was so giddy, and her eyesight became so dim, that she could scarcely reach her home, where she became insensible. While in this state her mouth

was drawn up to the left side, and her legs twitched violently. In half an hour she became sensible, and found that she had not either the power of motion or sensation in the right arm, leg, and thigh, and the right side of the face; all of which were benumbed and cold. Soon after a tingling succeeded, and in about three hours she had again the full use of the affected members. She is not in want of a proper modicum of animal diet, but is compelled to sit very closely to her avocation; is troubled with pain in the head and across the eyes; often sheds tears without any appreciable cause; her spirits are very volatile; sleep much disturbed with fearful dreams; has pain in the left hypochondrium, in the loins, across the hypogastric region, and down the thighs; urine scanty, high-coloured; catamenia regular both in colour and quantity; bowels moved only once or twice a-week; tongue furred; pulse 80, weak.—℞ *Croton oil*, gtts. iv; *aloes*, ʒvss. Make twenty pills. Take two every third hour, with an ounce and a half of cathartic mixture.

9. The pills made her sick, so she did not take them according to the directions; has had four or five dark, offensive, scybalous motions; has had only a slight numbness once on the right side, which continued but for a short time. To take one pill twice a-day. Repeat the cathartic mixture.

She continued to take her opening medicine for a fortnight, the motions being very scybalous at first, but became natural at the end of that period, when she expressed a wish to be discharged, as she was quite well.

Case 13.—Paralysis of Facial Muscles.—Feb. 8, 1839. Mary Hefferman, ætat. 44, a washerwoman, of spare frame and temperate habits, while engaged at the washing-tub, fell forward on it, and suddenly lost her speech. In a few moments she burst into a violent fit of crying and sobbing, which continued for some time. An hour after she was seized she walked a mile to her home. She was perfectly aware of everything that was said to her or was passing around, but was not able to make any reply. On arriving at her home she sat down in a chair, and on her husband's coming in and expressing surprise at her return she burst into a loud cry, as if, said he, "I had been thrashing her." He noticed that her mouth was considerably drawn to the left side, and that she could not swallow anything. She had had two crying fits within the preceding month.

Friday, March 1. I saw her now for the first time; she was sitting up in bed, and complained of pain in the vertex, inability to swallow; of her food falling between her teeth and cheek on the right side; of muscæ volitantes; tinnitus aurium; of frightful dreams; of a great fear of falling. She had a sense of tingling down the right hemisphere, the motion of which was unimpaired. She suffered much from flatulence, and passed a large quantity of limpid water when in her ordinary health. The left angle of the mouth was drawn up very considerably; the extremities were cold, and her bowels were constipated, she not having more than two motions a-week; tongue furred, protruded in a right line; pulse 72, weak, regular; skin cool.—℞ *Cathartic mixture*, ℥iss, every three hours.—℞ *Croton oil*, gtt. iv; *compound galbanum pill* and *aloes*, of each ʒj. Divide the mass into twenty-four pills. Take two with one dose of the mixture. (I ought to say that her speech returned on the preceding evening, but that it was considerably affected by the want of power over the right buccal muscles.)

3. The difficulty of speech and deglutition is to-day much less, though they still continue to a certain extent; has no control yet over the right buccinator, &c; the tingling on the right half of the body continues, and is worse when she lies down; tongue much cleaner; pulse 80, soft; bowels moved once; has had one crying fit. Continue the remedies.

5. I have learnt to-day from her sister that the account given by the patient is in every respect substantially correct, and also that she has suffered much mentally on account of the unsteady conduct of her husband. The pain and tingling down the right side has left her; the food does not now fall between the gums and cheek; her speech is much improved; has some heaviness about the root of the tongue; deglutition complete; complains of globus and vertigo on walking; passes less urine; bowels opened freely; stools dark brown and offensive; feet cold; pulse 72, weak; appetite bad; tongue cleaning.—℞ *Dilute sulphuric acid*, ʒiss; *sulphate of magnesia*, ℥iss; *compound infusion of gentian*, ℥viij. Take of this mixture one ounce every three hours.

9. Complains of being very weak; has much flow of saliva; no sense of weight at the root of the tongue, or globus; much less vertigo; has more control over the right buccinator; appetite improved; has much flatus; bowels moved once a-day; motions dark and very offensive; urine natural in quantity and colour; dreams of a frightful character affect her sleep; pulse 88, weak; extremities cold; tongue cleaner, protruded straight.—Continue the tonic mixture and purging pills. In a few days she returned to her work.

Case 14.—Feb. 1837. Thomas Wallis, ætat. 25, suffered much from the influenza, which reduced him considerably. He complained for some time past of a general numbness, which is increased towards night, after the exertion of the day, and which is diminished after taking any stimulant, and after a night's sleep; pain in the vertex,

vertigo, and slight fainting fits, accompanied with sickliness and profuse perspirations. His mind is much depressed, and his sleep disturbed by frightful dreams; was incapable of any exertion before his breakfast; and had a very strong tendency to weep, even if kindly spoken to. On Feb. 21st, while threshing in a barn, his vision became indistinct, had severe tremors, felt faint, and staggered to the wall for support; a profuse perspiration soon broke out, and on rallying, he felt as though he had lost all sensation in his lower extremities. He left his work and walked home, though he could scarcely feel the ground, so benumbed were his feet. His wife gave him some hot tea and put him to bed, where, in a short while, he recovered. I saw him on the 23rd. His principal complaint is of a circumscribed pain at the vertex, tinnitus aurium, a general want of sensation in all parts of his body when either touched or pinched, and a constant feeling as if he were falling through the bed; his extremities are extremely cold; has lancinating pain in the left hypochondrium and lumbar region. When he puts his feet on the ground he feels as if there were a piece of wood intervening between them. The pulse is feeble; tongue pale, indented on margins and slightly furred; bowels confined, motions dark and offensive. He was put upon a course of stimulants and tonics, and in a short time was quite recovered.

REMARKS.

The fourteen foregoing cases show the existence of a disease which it is most important, in every respect, to distinguish from the graver forms of paralysis, and I would term it *functional* paralysis, in contradistinction to that which depends upon *structural* change in the nervous centres, or in the nerves themselves. It must not be supposed that, like the latter, it is limited to one particular system of nerves, those of relative life, or that the paralysis is early in the chain of symptoms as they present themselves, as our inquiry will show that the entire nervous system throughout the body is affected, and that the loss of power is late in presenting itself, and is then only indicative of the general affection. The speedy recovery of the lost function is clearly demonstrative that there has not been any structural lesion in the centres or periphery of the nervous systems. We must, therefore look for some other cause capable of producing these phenomena.

In health, in order that all functions of the body may be properly performed, it is necessary that the following states must exist, viz:

1st. A proper supply of nervous influence to each organ.

2nd. A proper supply of healthy blood.

3rd. An unimpaired structure.

The first of these states may deviate from its standard, because the blood necessary to its production (I view the nervous influence in the light of a secretion) varies from its healthy and natural composition,

a, in being deficient in the proportion of nutrient particles in a given quantity, as in chlorosis.

b, in containing other than its natural components, in consequence of defective chylification, as the sugar in diabetes.

c, in its not being endowed with sufficient vital power, consequent upon the previous existence of one or both of the preceding states.

We thus see that a healthy digestion of our ingesta is essential to a due performance of all our functions; and we may understand how the functions of any particular organ may be improperly or imperfectly executed, although its structure continues unimpaired.

An analysis of these cases shows that this affection of the nervous system may present symptoms of paralysis,

1st, of the function of sensation only, as in cases 1, 2, 3, 4, 5, 10, 14.

2nd, of the functions of sensation and motion conjointly, cases 6, 7, 8, 9, 12, 13.

3rd, over the entire body, case 5.

4th, or confined to one half of it, either laterally or transversely, cases 6, 7, 9, 10.

5th, or limited to parts supplied by particular nerves only, as in cases 1 and 2, the ulnar; in 3, the radial; 7, the lingual; in 8, by a branch of the third; and in 13, to a branch of the eighth.

It occurred in six of the cases (5, 6, 7, 10, 11, 13) in males, the subjects in the remaining eight were females. The age at which the disease appeared, ranged from 17 years to 66 years.

The causes seem to be, so far as I can trace them, as follows:—

A.—The predisposing; the principal of which is impaired nervous influence arising from

1st, a deficiency in the nutrition of the nervous centres from impaired crasis of the blood, cases 1, 3, 8, 9.

2nd, the results of previous depressing disease, case 5, 14.

3rd, deficient nutrition of the nervous system through the blood containing other than its natural healthy components, from

a, the food not possessing the qualities necessary to the formation of healthy chyle, cases 5, 6, 9.

b, containing matters absorbed from matters remaining too long in the alimentary canal after they have become fæcal, the result of constipation, cases 3, 4, 5, 6, 8, 9, 10, 11, 12, 13.

c, disease of the chylopoietic viscera, whereby defective chymification takes place, the ingesta containing the proper requisites.

B.—The exciting causes are

1st, exhaustion from hæmorrhage, disease, or insufficient food, cases 2, 5, 8, 9, 14.

2nd, acute derangement of the digestive organs, case 6.

3rd, chronic derangement of the same organs, cases 3, 4, 5, 6, 8, 9, 10, 11, 12, 13.

The symptoms presenting themselves in these fourteen cases are resolvable into those indicative of derangements of the organs of

1st, Relative life :—

A.—*a*, impaired manifestation of the cerebral functions (viewing it as the seat of intelligence), cases 6, 10.

b, by dreams, usually of a frightful character, cases 3, 5, 6, 8, 11, 12, 13, 14.

c, by mental emotions, as laughing or weeping, cases 5, 6, 8, 9, 10, 11, 12, 14.

B.—Defective performance of the unintellectual portion of the brain and of the spinal cord, as shown by—

a, derangement of the functions of the special sensations,—1st, of vision, in cases 6, 7. 8, 10, 12, 13, 14; 2nd, of earing, cases 6, 10, 11, 13, 14.

b, of ordinary sensation, cases 1, 2, 3, 4, 6, 7, 8, 9, 10, 12, 14.

c, of motion, cases 6, 7, 8, 9, 11, 12, 13.

2nd, Of organic life, as evidenced by—

A.—Diminished animal heat, cases 5, 6, 9, 12, 13, 14.

B.—Increased action of muscular system under the influence of the sympathetic nerves.

a. Palpitation of the heart, cases 5, 11.

b. Increased efforts at micturition, case 5.*

c. Painful micturition, cases 5, 9.

C.—Derangement of digestive organs :—

a. Flatulence, productive also of globus, cases 3, 6, 7, 8, 10, 11, 13.

b. Symptoms directly dependant upon disordered stomach, cases 5, 6, 7.

c. Constipation, cases 3, 5, 6, 8, 9, 12, 13, 14.

D.—Derangement of urinary organs :—

a. Increased secretion of urine, cases 5, 6, 8, 9, 13.

b. Diminished secretion of urine, cases 5, 9, 12,

E.—The symptoms depending upon the organs of generation show that the catamenia were,

a, regular in cases 3, 12.

b, regular, but scanty, case 3.

c, absent, case 9.

The effects of the treatment show that,

1st, Stimulant tonics were productive of relief and benefit in cases 1, 2, 3, 5, 6, 7, 8, 10, 11, 14.

2nd, Purgatives were followed, also, by diminution of the symptoms, cases 3, 5, 6, 7, 8, 9, 10, 11, 12, 13.

There occurred distinct hysterical complication in cases 3, 6, 7, 8, 13, 11, 13, as indicated by globus; and by weeping, or laughing, in cases 5, 6, 8, 9, 10, 11, 12, 14.

The deductions to be drawn are the following :—

1st. The disease affects both sexes equally.

2nd. It does not seem confined to any particular age or period of life.

3rd. Those affected were all in reduced health, which I think a necessary precedent.

4th. Those suffering from some derangement of the digestive system are most prone to the disease.

5th. The whole nervous system shows symptoms of derangement, and as those dependant upon the ganglionic precede those arising from the cerebro-spinal, it is presumable that the latter is implicated only through its connection and dependance upon the former.

6th. The mere existence of paralysis, preceded with or attended by drowsiness and vertigo, flushed and swollen features, and symptoms of active constitutional disturbance, is not necessarily indicative of cerebral disease, or the propriety of treating the case by depletion.

7th. The prognosis is favourable as to the ultimate result, though many consecutive attacks may ensue.

8th. The most advisable treatment is to act upon the alimentary canal by warm and resinous purgatives; to remove undigested and long-retained excremen-

* Of the dependance of one form of strangury upon derangement of the sympathetic system, arising from undigested food, the following case is a valuable instance :—My father was called, on the evening of the first Friday in May, to a gentleman of highly irritable temperament, who was suffering from the most severe attack of strangury possible. The catheter was introduced, but the bladder was perfectly empty. To meet his wishes, blood was taken from the arm, but syncope ensued *very quickly*. Opium and ammonia were administered in large doses, and a turpentine epithem applied over the pubes. The pain subsided very gradually, continuing throughout the night in a lesser degree, nor did it cease until the afternoon on the following day. On investigating the cause, I found that he had suffered from similar attacks previously, but always after having eaten of undigestible food; and that for many years he had been afflicted with the most severe dyspepsia. On the preceding Wednesday he ate freely of boiled rhubarb dumpling; at night he had some colicky pains, and on the following day a good deal of diarrhœa set in, which continued till the Friday morning, when it ceased; at night the strangury set in.

titious matters; to relieve the momentary depression, where it occurs, by diffusable stimulants; and finally, to restore proper performance of the digestive functions, and in every way improve the general health.

9th. The existence of hysterical symptoms in males is rendered indisputable.

AFFECTION OF THE EYE

SUBSIDING ALWAYS ON THE

ADMISSION OF LIGHT.

By W. F. Barlow, Esq., Writtle.

David Brewster, an old man, seventy-eight years of age, has been troubled for about three months with the following symptoms:—

In the evening, when twilight is fast merging into darkness, or during the night, he is seized with a sharp darting pain, seated in the eyes, and running along the eyebrows, attended with various luminous appearances, vision of confused objects, such as floating clouds, &c., and a perpetual and incontrollable winking, whilst there is a general tremor and restlessness of the frame, together with an inexplicable feeling of alarm. The attack (which has no fixed time for its occurrence, but which sometimes happens not less frequently than four times between night and morning) persists until a candle is brought into the room, when it ceases instantly.

This is the strange feature of the case, for darkness is so proverbially considered to palliate almost every painful affection of the eye, that it seems a surprising occurrence for one to take place which never supervenes but *in the absence of light*, and which immediately vanishes *on light being restored*. With this exception there is nothing in the malady worthy of particular mention, and I only describe it with a view to show how the retina, the exalted sensibilities of which are so generally allayed by a darkened apartment, *may* yet, as in the foregoing instance, obtain relief by an exposure of the eye to its proper stimulus. I regard the case as being purely nervous in its character. There is no derangement of the digestive or the circulatory functions, no disturbance of the sensorium, and no apparent disorder of the constitution.

Writtle, near Chelmsford,
Dec. 12, 1842.

SMALL TOURNIQUETS IN PHLEBOTOMY.

To the Editor.—Sir: The following case illustrates my observations on the advantages of the tourniquet over the common ligature in phlebotomy. Instances occur in very corpulent patients where the operator has either failed to extract blood, or, by making a hazardous plunge with the lancet, has penetrated both sides of the vein. The consequences are well known. A mother of twenty-two children was so corpulent that no vein could be felt until the tourniquet was applied, when the median vein rose sensibly to the finger, and I opened it with facility, a copious quantity of blood flowing from a large orifice. The great advantage of the tourniquet consists in its graduated pressure, an effect that will always render it superior to the common ligature, according to my own experience and opinion. My tourniquet is the common one, reduced to the smallest size, containing a red woollen fillet, of a little more than half an inch in width, and always accompanies my case of lancets. I have the honour to remain your most obedient servant,

Primrose Lyon, Surgeon, R.N.
Hyde-pl., Clarendon-rd., Jersey,
Dec. 12, 1842.

NURSERY TREATMENT OF INFANTS, SUBMITTED TO PRINCE ALBERT.

To the Editor of The Lancet.

Sir,—Having been strongly urged to give publicity to the observations upon the nursery treatment of infants which I lately had the honour of submitting to his Royal Highness Prince Albert, I herewith transmit an outline of them, hoping that it may benefit the rising generation. After twenty-six years' extensive practice as a surgeon-accoucheur, I believe that at least *half* of the infants who die *within a year after weaning* might be saved by giving them the milk of *one cow*, and *one only*. I remain, &c.

Joshua Waddington, M.R.C.S.,
Consulting Surgeon of the Royal Sea-Bathing Infirmary.
Marine-terrace, Margate,
Dec. 16, 1842.

No other kind of milk to be given to an infant in addition to the milk of the mother or wet-nurse.

The less rocking the better.

When asleep, to be laid upon its *right* side.

The best food is "Lemann's biscuit-powder," soaked for twelve hours in cold spring-water, then *boiled* for half an hour, not simmered, or it will turn sour. Very little sugar to be added to the food, and then only at the time *when given*.

Sweets, of every kind, are most injurious, producing acidity, flatulency, and indigestion, sores in the mouth, and disordered secretions.

An infant will take medicine the more readily if made lukewarm in a cup placed in hot-water, adding a very little sugar *when given*.

The warm-bath (at ninety-four degrees of heat, *not less*, for *ten* minutes, every other night) is a valuable remedy in many cases of habitual sickness or constipation.

"Soothing-syrup," sedatives, and anodynes, of every kind, are most prejudicial. They stop the secretions. A very small dose of laudanum given to an infant may produce coma and death.

When an infant is weaned, which is generally advisable at the age of nine months, it is of the utmost importance that it be fed with the milk of *one cow*, and *one only* (a milch-cow), mixed with "Lemann's biscuit-powder" (prepared as before directed) and *very little sugar*.

Boiled bread-pudding forms a light and nutritious dinner, made with stale bread, hot milk, an egg, and very little sugar.

When an infant is twelve months of age, bread and milk should be given every night and morning: stale bread toasted, soaked in a little hot-water, and then the milk (of *one cow*) added *cold*.

Solid meat is not generally required until an infant is fifteen months of age, and then to be given sparingly, and cut very fine. Roasted mutton, or broiled mutton-chop (without fat), is the best meat; next to that, tender *lean* beef or lamb; then fowl, which is better than chicken; no pork or veal; no pastry; no cheese; *the less butter the better*.

An infant should not be put upon its feet soon, especially while *teething*, or *indisposed*.

Avoid over-feeding at all times, more particularly during *teething*. It is very likely to produce indigestion and disordered secretions, the usual *primary causes* of convulsions, various eruptive complaints, and inflammatory affections of the head, throat, and chest.

OLIVE OIL IN YELLOW FEVER.

To the Editor.—Sir: Your courtesy on former occasions, in inserting in THE LANCET my remarks on the *prevention* of disease, induces me to state very briefly the peculiar manner in which the Spanish physicians treated their patients at Gibraltar during the epidemic fever of 1813. Whenever a native was attacked he was immediately directed to swallow a sufficient quantity of olive oil* to act as an emetic. He was then stripped, rubbed well with oil from head to foot, and left to the *vis medicatrix naturæ* and liquid aliment; and (however, in other respects, a worthy disciple of the Sangrado school) the native practitioner had much more success than the British medical officers in restoring his patients to health. At the time to which I refer I was not of an age to think about the *rationale* of such treatment; but as my own father, among many others, fell a victim to the disease, all the facts and details which I heard of that calamitous visitation became deeply impressed on my memory. Still, lest, after so long a lapse of time, I might be in error, about two years ago I requested a very intelligent military acquaintance at Gibraltar to make further inquiry, and from him I learn that my recollection is correct; but he adds, that the joints were rubbed with especial care. Various instances occurred at the same melancholy period of poor people whom no one sought after, or were missed, recovering in caverns of "The Rock," to which they had crept for shelter, on finding themselves suddenly attacked, and where they were enabled to slake their thirst by applying their tongues to the humid sides of their comfortless cells.

With respect to the oil-treatment, I think I have heard that some of the African tribes use palm oil as an unguent in fever. For the *modus operandi* I do not pretend to account, although various conjectures present themselves to the mind. It would, however, certainly appear that the Spanish physicians attached no importance to diaphoretics: probably the emetic, and total abstinence from solid food, were of far greater importance than the friction. A mild unirritating emetic, exhibited in good time, will often, I am persuaded, arrest the progress of febrile disease *in limine*; but the first stage of fever is too often past before either the patient or any one about him suspects that he is seriously indisposed. Thus, during the epidemic of which I speak, one officer, after being relieved on guard, apparently quite well, died within thirty-four hours; but it appeared that he had felt afraid, for a short time previously, to be out alone after nightfall, although a remarkably cool, courageous man, and believing himself steeled against the prevailing malady, from having escaped uninjured on various similar occasions.

Before taking leave of the subject of this article the following anecdote may not be unprofitable to even the young medical practitioner visiting tropical climates for the first time:—A late naval acquaintance, while cruising on the West India station, one night awoke with a sensation of chilliness, and was alarmed to find that the port-hole in his cabin had not been properly closed. He well knew that fever and death were no unlikely consequences, but being a resolute, self-possessed man, he immediately sprang from his cot, shut the port, dressed himself warmly, and walked the quarter-deck at a rapid pace, until he freely perspired. He then went below, and turned in, putting on additional covering to keep up the increased action of the skin; he soon fell soundly asleep, took a little cooling medicine when he awoke next morning, and felt no subsequent bad effects. Moderate diet, a happy medium between abstinence and excess, moderate exercise, and

* From half the contents of a small tumbler, upwards.

"protective clothing" when exposed to sunset and nocturnal chills, are the best general means of avoiding febrile disease in warm countries. I have the honour to be, Sir, your very obedient servant,

J. A. WALKER,
Lieut. H.P., 34th Regt.

Cliff House, Torquay, Devon,
Dec. 15, 1842.

RESULTS OF M. FLOURENS' EXPERIMENTS ON THE DEVELOPMENT OF BONE.

M. FLOURENS, in his recent memoir, entitled "Recherches sur le Development des Os," gives the following as the results of his experimental researches on this subject. The osseous structure is a secretion of the periosteum covering the bone, and which, though destroyed, is reproduced. But in long bones, in the interval between its destruction and reproduction, the internal periosteum, or that lining the medullary canal in the centre of the bone, becomes peculiarly active in its function in the parts subjacent to those where the external periosteum is wanting; and at such points, on opening the medullary canal, an obliteration of the latter is commonly found, caused by a deposit of fresh bone. In a state of health and perfection both the external and internal periosteum secrete bone, and a destruction of either involves an increased duty and activity of production in that remaining.

It has been already proved, by the aid of madder-root, that bone grows by successive layers, but the experiments of M. Flourens appear still more decisive of the fact. He surrounded the long bones of several animals, as dogs, rabbits, guinea-pigs, &c., with threads or rings of platina, and afterwards killed the animals at various intervals. A young rabbit, the tibia of which was thus treated, was suffered to live twenty-eight days, when the platina ring was found in some parts covering the old, and in others covered by new periosteum. In a second rabbit, treated in a similar manner, and kept for thirty-eight days afterwards, the ring was found not only covered with periosteum but also with a new osseous deposit. In a third rabbit, forty-three days after surrounding the bone with platinum, the latter was found covered with a considerable quantity of bony structure, evidently freshly superimposed. A guinea-pig, the subject of a like operation, lived twelve days afterwards, during which time it had been fed with madder, and in this instance the newly-deposited bone around the platinum was distinguished by being reddened, the older structure remaining of its original colour. Other experiments of the same kind, by M. Flourens, have proved that the periosteum grows or is renewed in the same manner as the bone, by successive deposits of matter.—*Gazette Medicale*, Nov. 12.

ST. THOMAS'S HOSPITAL.

ON the 16th inst., what is called an evening "conversazione," was held by the medical teachers of St. Thomas's Hospital, and some hundred other gentlemen, in the hot-air bath, or "great hall," of that institution; the second since the commencement of the session. The business of the evening was opened by an address from

Mr. SOLLY, on the subject of mollities ossium, in the course of which a very remarkable case of that disease was related. He commenced with an exordium upon the general characters of the human skeleton, deprecating the ill-founded notions which formerly prevailed in the profession, and even now popularly entertained, that as the osseous texture was endowed with little sensibility in health, its liability to disease was correspondently reduced. He might pass under enumeration a long category of diseases which occurred to the bony structure itself, to prove the truth of the fact which surgeons now universally accept as established, namely, that whether the calcareous contents of the ultimate corpuscles be actually organic or not, the sensibilities and vital endowments of bone, viewed in the aggregate, were high enough to render it open to every form of disease to which other organs are exposed. Inflammation, ulceration, suppuration, under every degree of severity, might happen in this system of organs. Hydatids, those eccentric productions of the animate world, might find in its cancelli a genial residence. But there was one form of morbid change which surgeons were sometimes called upon to treat in the osseous system, as rare, fortunately, in its occurrence as it was prolonged in its duration and fatal in its tendency. It was scarcely possible to find in any other structure in the body a disease, or form of morbid change, which could be called a parallel to that softening of the bone which in the child was termed *rickets*, in the adult, *mollities*. Mr. Solly quoted the views of M. Guerin to confirm him in the belief that the softening of the bone in infancy was essentially different from that progressive disintegration of structure which led to the permanent softening of the whole osseous fabric in adult age. This was malignant, the former was an innocent affection. Rickets had its origin in perverted nourishment, in cruditus of the alimentary passages, in unhealthy food and air. It did not necessarily issue in a fatal result, though, with recovery, the distortions of the body and of the limbs never entirely disap-

peared. Mollities ossium had not yet been traced to a satisfactory cause. The few instances of recovery which continental surgeons had recorded were doubtful and ill-authenticated. Our ignorance of its productive causes was as complete as our knowledge was complete of its present incurability. Mr. Solly said that he was indebted for the particulars of the following case to his friends Dr. Conolly and Mr. Davey,* of Hanwell, and Mr. Dutton, of York-street, Bryanstone-square. He remarked that this disease was as old as Mahomet, in whose life it was recorded that the bones of the prophet Gatles were so soft that they could be folded as a garment. The case of Madame Supiot, recorded by Morand, was one of remarkable severity; all the bones were as soft as wax. In the annals of English surgery he had collected many interesting cases. The case of a person called Penny, under the care of Mr. Thompson, of the London Hospital, presented many points of interest. Cases of this disease had been published by Mr. Curling and Mr. Howship. In that of Mr. Howship the sea-air produced a decided benefit: it was believed by Mr. Howship that if the person had continued for some years under the enjoyment of its benefit, a partial recovery would have taken place. Mr. Solly then entered at length into the details of the remarkable instance above mentioned, which recently happened at the Hanwell Asylum. It was that of a woman who had passed through a protracted course of mental and bodily suffering before the disease of which she died was developed. She had descended from a healthy family (the case, therefore, was not hereditary), and was the subject of scarlet fever at eighteen years of age, after which her health declined, the urinary system became affected, pains in the back and limbs occurred, her mind became deranged, and her bones liable to fracture under the most trivial causes; and now the work of softening in the bones showed itself still more decidedly, and deformity became evident. Although the bones of the head had undergone great thickening and enlargement, her mind improved before the period of her death. The appearances after death in the bones corresponded remarkably with the cases which other surgeons had recorded. The bones of the head were considerably thickened, and so soft as to be cut readily with the knife. The cancelli of the diploe had greatly enlarged. In diameter the bones of the extremities had greatly augmented, while the medullary cavities had enlarged, and the shell of the bone was rendered thin. The cavities of all the cylindrical bones were filled with a dark, soft, grumous substance, which here and there contained the particles of disintegrated bone. It was a circumstance worthy of marked attention, that in the twenty cases of mollities osisum which he had collected, a most intimate agreement obtained in the details of the post-mortem examination. Considerable curiosity had lately been raised in this hospital by the supposed discovery of entozoa in the bones of the individual whose case he had had the honour to relate. Portions of the bones were given to an ingenious mechanic for the purpose of mounting sections for the microscope. In examining these sections, he supposed that he saw something like worms pervading each section examined; and, for some time, by other observers, they were thought to be *bona fide* entozoa. As the question affected importantly the pathology of the disease, he (Mr. Solly) felt obliged to investigate it thoroughly. With the assistance, accordingly, of his able friends, Mr. Quekett and Mr. Busk, he had examined the bones in every possible way. They were all at last convinced that the appearance of worms in some of the sections was caused by solid particles which had been incorporated with the substance of the bone in the process of preparation. Mr. Solly, in conclusion, remarked how cautious observers should be when engaged in interpreting the revelations of the microscope.

Dr. HODGKIN then gave an account of a new method lately adopted by Mr. FRANCIS SIBSON, house-surgeon to the Nottingham Infirmary, of collecting and recording the results obtained by auscultation and percussion in the examination of the chest and abdomen. It may be described as a systematic plan of presenting at once to the eye the relative and absolute size of the viscera, their displacements, and the exact locality and area of the diseased spot. The method adopted by Mr. Sibson consists in the employment of a frame of wood large enough to enclose the trunk in its area. The space within this frame, which is placed over the trunk during the examination, is crossed by vertical and horizontal wires that are capable of being moved from one place to another, as the spot to be defined may require, and the position, as well as the condition, of the viscera is ascertained in the ordinary way of auscultation and percussion; but by means of this frame, introduced by Mr. Simpson, the evidence thus obtained can be transferred to paper in the most systematic manner. So that the concealed organs of these cavities may be presented to the eye at one view in their individual conditions and relative situations. Such a process, in the language of Dr. Hodgkin, is tantamount to the actual observing of the viscera when the enclosing parietes have been removed. Mr. Sibson has already succeeded in developing many points of great interest and novelty, by the indus-

* We have received from Mr. Davey a report of this case, drawn up as a communication to THE LANCET, and shall probably be enabled to publish it next week.

trious and systematic prosecution of this plan, and, Dr. Hodgkin observed, is entitled to the highest praise for his researches on this subject.

The company present amounted, as we have been informed by "one having authority," to more than eight hundred persons, the room presenting a very interesting spectacle. The farther wall was covered with well-executed diagrams. On the long table of the hall were placed numerous and valuable specimens of mollities ossium, for which the museum of this hospital has long been distinguished. Tea, coffee, and other refreshments, were supplied with the most liberal and unsparing hand. Among the company were Sir James Clark, Sir Geo. Carroll, Sir Geo. Lefevere, Count Rosin, Mr. Wm. Williams, M.P., Mr. Pilcher (the sheriff), Alderman Farncomb, Mr. Hotham Pigeon, of Christ Church, Mr. Thos. Weeding, Mr. J. B. Burbridge, Mr. Gibson, and many other governors of the hospital. Dr. Freunel (from Vienna), Dr Dieffenbach (of Berlin), Mr. Antonius Ameury (of Beyrout), Professors Grant, Owen, Sharpey, and Murphy, and Mr. John E. Gray of the British Museum. At such another meeting, and on such another evening of December, some means must be adopted of ventilating the room. Many of the company literally gasped for breath, at last, per force, removing the blinds and opening the windows.

CLOSURE OF THE EYELIDS.

A GOOD article will be found in the "Dublin Medical Journal," vol. xviii. p. 70, by Mr. Gabriel Stokes, clearly proving that the closure of the eyelids is not a mere passive condition, from relaxation of the levator, as taught by Bichat, but that muscular agency is employed in its accomplishment. An interesting case is there detailed of paralysis of the *portio dura*, occasioning lagophthalmos, in which, as in similar cases, by no means so very uncommon, the upper eyelid assumes that position in which the force of gravity, unaided by muscular effort, would place it. With Sir C. Bell, he remarks, that, during sleep, the eyeball is turned up, whilst the affected eye remains open; in fact, the lower third of the eyeball is exposed in these cases by the dropping of the upper lid over the two upper thirds, and the white of the eye alone shows, from the more or less complete action of the inferior oblique. Mr. Stokes considers the muscle as a true sphincter, for the reasons that it presents all the anatomical and physiological characters peculiar to such muscles, viz., a mixed function, the voluntary power being employed during a state of wakefulness, the involuntary during sleep, regarding the orbicular and palpebral portions as but one muscle, possessed of a similar mixed function.—*Dr. Hocken, Edin. Jour.*, Oct.

THE LANCET.

London, Saturday, December 24, 1842.

A DEATH very lately occurred in Paris, during an operation for the removal of a tumour in the neck, from the spontaneous introduction of air into the jugular vein. The case, which we insert at page 461 of this week's LANCET, has caused "a sensation" among the surgeons of the French capital, and elicited a communication to the Academy of Sciences from M. MERCIER, in which an endeavour is made to explain the *modus operandi* of air in producing death in such instances, the fatal result, according to M. MERCIER, occurring, as in prolonged syncope, from the supply of blood to the brain being insufficient to enable that organ to perform its functions; and while, in syncope, death occurs only when the feebleness of the heart's action is greatly prolonged, so in the case of air finding entrance into a vein, the mortality happens only by reason of the interruption which the air causes to the progress of the blood being too long continued. The tendency which the air in this case has to produce a fatal result, is due (says M. MERCIER) to its elasticity, its power of reflux, and its mechanical mixture with the blood. *First*, as to its elasticity; the air, already arrived at the right ventricle of the heart, condenses, from pressure, as that organ contracts, and again expands on its dilation. The impulse of the ventricle is, accordingly, counterbalanced; for, obviously, while in part exerted upon an elastic fluid of this nature, it cannot impress upon the blood in the pulmonary artery the force that is sufficient for the propulsion of an incompressible fluid. *Secondly*, as to its reflux; a gaseous body often passes where a liquid cannot penetrate. The valves of the heart do not close hermetically enough to hinder the air from returning into the cavities of the heart, though the valves may so contract so as to expel the blood which they contain. Moreover, say

M. MERCIER, this tendency to reflux is demonstrated by the presence of air in another set of veins than that by which the air has entered; as in the inferior cava, for instance, after entering the body by the superior. *Thirdly*, as to the consequence of the mechanical mixture of air with the blood. It is a law of physics, that a gaseous body, when mixed with a liquid, impedes the passage of the liquid in tubes of small diameter; and, accordingly, the frothy fluid that is created by the mixture of the blood with air, traverses with difficulty the capillaries of the lungs. Thus the blood is not only deprived of a large share of the heart's impulse, but experiences more resistance and difficulty in its passage. It cannot, therefore, be a matter of wonder that great interruption to the circulation suddenly ensues.

It is, however, very seldom that air obtains admission into the veins in sufficient quantity to render this interruption complete,—very rare that some portion of blood does not reach the left ventricle. But this portion, which is often much less than the ordinary quantity, has still to be distributed throughout the whole of the arterial system; and, accordingly, a much smaller proportion reaches the brain than is required for the due performance of the cerebral functions. Syncope will be the necessary consequence, tending the more to become mortal as less blood is furnished to the brain. But the heart beats long after the functions of the brain are suspended, as has been proved, among a number of other instances, by the fatal case above cited, M. GORNÉ perceiving a distinct reflux in the jugular vein for five or six minutes after death. Could any artificial means be employed to cause the whole or the greater portion of the blood arriving at the right ventricle to be sent to the brain until such time as the heart should have disembarrassed itself of the air within it, and the circulation have become comparatively easy? M. MERCIER asserts that this may be effected by *compression on the abdominal aorta and axillary arteries*; and to show that this, in man and mammalia, is both easy and efficient, he details the following experiment, which we quote, nearly in his own words, from the "Journal des Hôpitaux" of Dec. the 3rd:—

"I cut across the sterno-humeral (pectoralis?) muscle in a healthy dog, of middle size; the immediate consequence of which was an hæmorrhage to fifteen or sixteen ounces, to arrest which I found myself obliged to tie the axillary artery. The axillary vein, however, continued to swell at each inspiration, and subside at each expiration of the lungs; and I opened it transversely, favouring the admission of air by holding open the lips of the wound with forceps. Very soon extreme anxiety, hurried respiration, and weakness, manifested themselves, followed by general collapse; and in ten minutes the breathing, which occurred only at long intervals, was the sole obvious symptom of animation. I then compressed the aorta. (We are not informed in what manner—probably by simple pressure on the abdomen.) In a short time the breathing became more frequent; the animal whined plaintively, opened its eyes, raised its head, and tried to raise itself on its feet, and the respiration appeared to have regained its natural condition. I ceased my compression, and the breathing, which at first accelerated, soon became gradually slower, and the animal relapsed into the state previously described. Newly-applied compression again induced the restoration of the vital functions, as above detailed; and the two sets of phenomena, those attending revival and collapse, were thus produced alternately at will during about half an hour. At the end of that time, on the occasion of a reapplication of compression, the dog manifested strength enough to enable it to get on its legs, an action which on the previous similar occasions it had only attempted in vain. It was also able to maintain this posture on compression being taken off the aorta; and it soon set itself to lick up the coagulated blood on the table. Two hours afterwards it ate half a pound of solid flesh; and the only inconveniences it afterwards suffered were constipation for eight and forty hours, and subsequent diarrhœa for four days. Its wounds healed rapidly, and the animal remained afterwards in perfect health."

Here the question at present stands at ease, probably, however, only for a short period, since it is what may be called a "regular puzzler," opening a large field both for French experimentalists and French guessers.

The narration of such cases, and the researches which they prompt amongst medical men, contrast wonderfully with some other events in civilised society. Here have

we, on one hand, a whole academy of learned men, busy on the salvation of a single life, employing every thought and capacity that can be racked to restore one maimed, feeble, dying person; and, on another, an entire nation of mortal beings, hourly exposed to every damnifying influence of disease, misery, and want, without so much as a petty department of health amongst its institutions, to receive, consult on, and devise those measures which—capable of being pursued only on a *national* scale,—are obviously needed, and would be certain of success, in every town, village, street, and hut of the kingdom. What inconsistencies and absurdities characterise the history of man! He records the marriages, registers the births, enumerates the population, and collates the deaths, but as for his health, once born and enumerated, he ensures less care for it from the state than he makes the state bestow upon his death. Quite certain is he that the undertaker will be assisted by the law to prevent his perishing corpse from stenching the nostrils of survivors, but not one thought does he cast upon the governmental means that are employed upon his sanatory condition as a living being.

THE publication of the following correspondence merely demands from us, on the present occasion, this remark,—that if the letter which is subscribed, "The Editor of the Medical Times," had not been accompanied by the communications signed, respectively, "T. PIERS HEALEY," and "H. GREGORY," it would not have been introduced into our columns. (The correspondence is printed exactly as it was received by us):—

A REPLY TO THE

NOTE OF DR. MARSHALL HALL.

To the Editor of THE LANCET.

SIR,—Your insertion of Dr. Marshall Hall's injurious, and certainly not over correct charges gives me a claim, in *honest English fair play* to a reply, and I dare say our being fellow journalists will not invalidate that claim.

As far as Dr. Hall has made himself understood to me his charge, or charges resolve themselves into this—that I announced in your journal his correction of his lectures "*as if* he had entered into a spontaneous arrangement with me." He does not complain of my doing something, but of my doing it "AS IF"—a kind of constructive guilt which once counted against the Sovereign, and still counts it seems against Dr. Marshall Hall Fellow of the College of Physicians. Unfortunately even this ingenious "constructive" charge is without truth. The announcement I ordered was the shortest, plainest, least ambiguous and most free from "as ifs" possible; viz., "a set *reported verbatim, expressly* for the Medical Times and carefully corrected by the lecturer," calling the most possible attention to the reporter's labours and the least possible to those of Dr. Hall. When Dr. Hall therefore asserts that I announced explicitly or implicitly "his entering into a spontaneous arrangement with me" he asserts that which is not true *as he knew*. But though I announced no such thing Dr. Hall *knows* there was a "spontaneous arrangement"—*with me too*—and not with me only, but with the reporter also and this twofold spontaneous arrangement was not only to *correct*, but to REWRITE his lectures and conscious of this disgraceful compact—for it was disgraceful to him if it were meant to have been underhand and on the sly—his timidity took everything, however distant, for the divulgement of his compromising secret. He himself avows that he did not discourage the reporter in his intention to give his lectures; he owns he forthwith offered him assistance, that he pledged himself to correct—nay to rewrite them and though he *now* explains the latter offer by the flimsy and palpably false pretext that the lectures needed it from the incorrectness of some "*medical terms*" (which any medical man could correct in five minutes) yet the fact remains unchanged that he "arranged spontaneously" with the reporter first to allow his lectures to be reported for me—Secondly to revise them himself when reported—thirdly to *rewrite* them. But further. Though Dr. Hall says he undertook the revision and rewriting to do a personal service to this unknown "person calling himself a short hand writer" who applied to him (Dr. H. says) not for me, not for the journal but for *him* (the reporter)—and Dr. Hall marks this in italics—yet did Dr. Hall—unwritten to by me, uninvited, unsolicited, "spontaneously" if he like the word better write to me—hitherto a passive party in this matter—to what effect do you think? Why "that it had occurred to him (kind suggestion!) that it might be well to postpone the insertion of his lectures until the first number of the new year" and "undertaking in that event to write them out himself." He kindly gave his reasons "They (the lectures) would be *more* perfect and of more service to ME" (the Editor). But this did not end his spontaneous kindness. He arranges to do the work "well," and con-

cludes, "*you might insert several notices* and EXCITE A LITTLE EXPECTATION!" This letter is dated the 8th inst.—the advertisements announcing "careful revision by the lecturer" appeared on the 10th. So you see Sir the spontaneous arrangement which the fastidious "Fellow" thinks so disgraceful, even in imagined possibility, absolutely did take place, in full plenitude, with every aggravated complication, and that, too, not with me only, but with my *employé* also.

Dr. Hall being a gentleman who can do great good on small inducement says that it was necessary to rewrite the lectures because they were so faulty. They may be faulty but (as any body that reads them may see) they are exactly as he delivered them. If this then be a charge against himself, let him answer it to his insulted auditory; if against the reporter whose deservedly high character as a short hand writer is in truth his bread—his charge is a miserable and transparent calumny which no man of spirit—however driven in self defence—would have resorted to.

That reporter's answer to this as to Dr. Hall's other statements is conclusive. He affirms that directly or indirectly Dr. Hall *sought* the report of his lectures in the Medical Times, *unasked* gave him a card to the lectures; invited, courted, welcomed the revision of the lectures, declared when he saw the first that it was word for word—and read a large portion of it in his own parlour, before the reporter, page after page, saying to each "There is nothing to correct in that," and he further asseverates that Dr. Hall at every interview was exuberant in his expressions of anxiety to serve *me* (the Editor of the M Times) and felicitated himself that he had now an opportunity of making what he called an atonement for his past inactivity. If Dr. Hall therefore be not—as universal report has it—fatally compromised to another journal by the reviewship of his own books, no one but himself can understand, much less explain, the excito-motor principle of his recent letter to you, a letter which whatever may be thought of the originality of Dr. Hall's physiological *theories*—puts that of his civic *practices* far—very far beyond dispute.

Replys sir always require more space than charges which are often mischievous in proportion to their unspecific brevity, but I trust you will overlook the length to which my remarks have extended in pity for an unfortunate Brother Editor involved *bongré malgré* in a contention with a person in whom the very genius of professional squabbles seems to be incarnate—and who as if under some invincible fatality can have no dealings with either predecessors or contemporaries save to their loss. Appending the confirmatory observations on this note of my esteemed *collaborateur*, Mr. Piers Healey, the Barrister, and of Mr. Gregory, the short hand writer.

I am Sir your obedient servant
THE EDITOR OF THE MEDICAL TIMES.

Note from Mr. Healey.—"My dear ——
I am too happy to have an opportunity of expressing my entire concurrence not only in your statement of facts but in every sentiment you have expressed in reference to them. If Dr. Hall after your *exposé* (which I thus willingly make my own) do not lose caste—if that misfortune still await him—I shall have a far humbler opinion of the present heads of your noble profession than any thing in their past history warrants. Believe me my dear ——, faithfully yours,
"T. PIERS HEALEY.
"Dec. 17, Essex-street, Strand."

Mr. Gregory's note.—"16, St. James's-street, Clerkenwell.—Sir, Having read your letter to the Editor of THE LANCET, Dec. 17, 1842, I conscientiously testify that all therein related with regard to myself and my interview with Dr. M. Hall is true to the letter. And in contradiction to Dr. Hall's statement which to my own knowledge does not contain but one assertion which is not either a falsity or a mutilated truth, I unhesitatingly pledge my character as a short hand writer of nine years experience to the entire correctness of my reports of his lectures now in course of publication in the Medical Times.
"I remain &c. H. GREGORY.
"To the Editor of the Medical Times."

On a Variety of False Aneurism. By ROBERT LISTON, F.R.S. Longman and Co. 8vo. 1843. Pp. 39.

WHEN the Medical-and-Chirurgical Society issued the seventh volume of its Transactions, it was accompanied by a paper on the above subject, printed by the author, Mr. Liston, at his own expense, for "distribution among the members," the paper having been read before the society on March the 8th, last. The proceeding adopted on this occasion being unusual, we examined carefully both the volume and the paper with the view of estimating the respective merits of the former and the excluded paper, in order to form some judgment on the propriety of the exclusion; and the result of our opinion is that a considerable proportion of the volume is made up of second-rate articles, founded on mere observations by the eye, with which the mind had very little to do, while the paper of Mr. Liston is a valuable contribution to practical surgery. Can a long story about the misdirection of the vessels arising from the heart, or a malformation of the heart itself,—a mere physiological curiosity,

—be compared with a subject which involves the perpetual comfort, and probably the life, of a human being? Or of what value are theoretical speculations on the symmetry of disease, in comparison with the investigation of a serious malady, and the means to be adopted for its cure? But in the present instance there is no need to excite the feelings by contrasts of so unsatisfactory a kind. The paper shall speak for itself, and we are certain that even the authors of those other papers, had they possessed the power, would themselves have acted differently from the council on the present occasion, and felt glad to associate so practical a communication as that on "A Variety of False Aneurism," with the fruits of their own labours.

Mr. Liston having stated, in his introductory observations, that he has met with a remarkable instance of disease, and that much benefit is likely to result from the detail of unsuccessful cases, narrates the case, first published in THE LANCET, of which the following is a summary:—

A boy, nine years of age, about two months back, after an attack of cough and fever, became the subject of a swelling below the right ear, which was fomented and poulticed. The tumour slowly increased, but a few days before his admission into the hospital it began to progress rapidly. By projecting into the fauces it impeded respiration and deglutition, and it pointed near to the posterior border of the sterno-mastoid muscle. An obscure fluctuation was perceived by the touch, and some degree of pulsation in the course of the carotid artery.

Let the unprejudiced reader review this evidence, and state the nature of the case from the symptoms. Would he believe it to be one of aneurism? We ought not to credit that he did, were he to answer in the affirmative. Does he recollect the rarity of aneurism in a child? Did he ever hear of carotid aneurism in a child? Does it accord with the history of aneurism, that aneurism should appear and become developed, almost to bursting, in two months? It is not usual to find the artery, in a case of true aneurism, passing over the superficial aspect of the tumour. The reverse of that is always the fact. Moreover, is it likely that an aneurism of the common carotid would acuminate behind the posterior border of the sterno-mastoid muscle? Every well-educated surgeon must reply in the negative.

Mr. Liston regarded this tumour as an abscess, and introduced into it a bistoury, when out spurted a jet of arterial blood. The opening was secured, and on the following day the carotid artery was tied. In other words, that treatment was adopted which would have been followed had the true nature of the tumour been detected at first. On the thirteenth day after the operation, secondary hæmorrhage from the seat of the ligature ensued. This was repeated on the fifteenth and sixteenth, and on the latter day the boy died. This treatment was accordant with sound practical surgery; and, now, what was the result of the post-mortem examination? A verification of the diagnosis of Mr. Liston. There was no disease or dilatation of the arteries, but on the posterior aspect of the common carotid, just at its bifurcation, a circular aperture was found, communicating with a cyst of condensed cellular tissue, lined by a pyogenic membrane, identical with the ordinary structure of the cyst of an abscess. The coats of the artery were seen to terminate abruptly at the edge of the opening, and there was no coagulum in the sac. This certainly was not a case of ordinary aneurism, but an instance of a rare surgical affection, an abscess communicating by ulceration with an artery, and thus giving rise to "a variety of false aneurism." The abscess had formed behind the artery, raising the latter from its bed, and separating its connections, so as to deprive it of its share of nutrient vessels. In this state of the vessel ulceration was a natural consequence; an aperture was formed, and the cyst of the abscess, previously small, became rapidly distended. We do not dwell on any question relative to the non-appearance of pus, either in the jet or after death. Who could distinguish pus, probably a small quantity, in a jet of arterial blood, or in arterial blood occupying a cyst of large size?

Having carried the matter to this point of the inquiry, we express here our opinion that Mr. Liston has conferred a benefit on medical science by recording the history of this variety. The paper is accompanied by eight cases which Mr. Liston considers to be of an analogous kind, and as proving the liability of the human system to such occurrences, and awakening attention to this additional means of forming a perfect diagnosis under similar circumstances, leading to the most judicious mode of treatment.

The first of the cases appended occurred to Dr. Craigie. It consisted in an extensive abscess of the tonsil, running down the sheath of the carotid vessels, and communicating with the common carotid, close to its bifurcation.

In the third case the femoral artery was opened, by sloughing, into a deep-seated abscess. The fourth case fell under the observation of Sir Astley Cooper.

In the fifth case, recorded by Mr. Syme, the affected artery was the popliteal. In the sixth, Mr. Gulliver's case, the carotid opened into a pharyngeal abscess. In the seventh, Mr. Fergusson's, the lingual artery communicated with an abscess in the neck; and in the eighth, the opening existed in the arch of the aorta. The latter case is narrated by M. Breschet, and evinces much judgment and philosophy in its details.

"It seems to prove," says the writer, "that medical science is thickly studded with difficulties, both as relates to diagnosis and treatment. It is to be remarked that sanguineous tumours, communicating, by a very small opening, with the interior of an artery, evince no pulsations in the early periods of the disease, when placed deeply among the tissues; and that, even in the latter stages, the movement is less a pulsation than a vibration, or trembling. This fact is deserving of attention, inasmuch as it may be the means of enabling surgeons to judge, *à priori*, whether the disease is a sanguineous tumour, produced by the dilatation of an artery, or by the *erosion* of a part of the parietes of the arterial canal."

We have not occupied more space with this question than the case deserves. As for the conduct of the council of the Medico-Chirurgical Society on this occasion, it is not worth comment, although, had the great body of the profession any particular interest in the publications of the society, we might be induced to ask the editors why they took this liberty with the records of medical science.

Dr. Crommelinck, a Belgian physician, after examining most of the principal hospitals, lunatic asylums, &c., in his own country, paid a visit to those of London. He appears quite delighted with the large scale of most of our hospitals, and the liberal funds for their support, but slily remarks, that the medical treatment (*le service medical*) pursued therein is far from being of the highest order, and that the cures effected are by no means to be attributed to the system of therapeutics pursued.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY,

December 13th (concluded).

Report on Lithotomy, with Observations on Cheselden's last and most successful Method of Operating.—Discussion. By Charles Mayo, Senior Surgeon to the County Hospital at Winchester, contained in a Letter to Mr. Stanley, of St. Bartholomew's Hospital.

Mr. Mayo, in this communication, stated that it was his object to recommend for general adoption a method of operating which he believes to have been that which was most approved by Cheselden, but upon which question there appears to have been much difference of opinion, even among the writers who were contemporary with Cheselden, or nearly succeeding to his time. This operation is performed with a common scalpel, making, first, a large and deep incision; then, having cut into the side of the prostate gland, the knife is brought out, along the groove of the staff, into the membranous portion of the urethra. In a case in which the operation was performed upon the dead subject, the author thus describes the incision, as ascertained by a careful dissection:—"The tract and extent of the incision in the prostate appeared to be from an inch to an inch and a half in length, and in an oblique direction, leaving the seminal ducts and caput gallinaginis to the right, and ending in the membranous part of the urethra." Of 16 patients who were operated upon in this manner in the Winchester Hospital, and in private practice, 2 died, and in one of these there was found much disease of the bladder and kidneys, while the other presented extensive disorganisation of the lungs. The author objects to the statement and advice given by Dr. Willis, namely, that "the perfection of the operation consists in making as small a nick as possible into the anterior edge of the prostate, and tearing the rest," and Mr. Mayo remarks, that there are several objections and inconsistencies which might be observed upon in the practice of the most successful lithotomist, giving, as an instance, the practice of Mr. Martineau, who lost only 2 cases out 84 cut in 17 years, and who, nevertheless, was in the habit (as Mr. Mayo says) of making a lateral enlargement of the wound in withdrawing the knife, whereby the internal pudendal artery must often have been in jeopardy, and of putting lint and a pledget of tow over the wound, to exclude the air. He concludes by remarking that the main points on which he particularly insists are "a free incision of the neck of the bladder, so that the stone may be extracted without laceration; and a large external wound, properly kept open, in order to avoid all risk of urinary infiltration."

Mr. DALRYMPLE rose, not to pass an opinion on the merits of the operation described by Mr. Mayo, but to correct what he believed was some misapprehension as to the mode practised by the late Mr. Martineau, of Norwich. It was true that Mr. M. had been eminently successful, and that the operation, as performed at the Norwich Hospital, generally had been marked by great and admitted success. Still it was very far from Mr. Martineau's, or the other surgeons', intention to recommend *free* incisions of the prostate or neck of the bladder. Mr. Martineau was too good an anatomist not to be aware of the extreme danger of implicating the deep pelvic fascia in the required sections; for it must be well known to all practical surgeons that the most serious evil to be dreaded after lithotomy was infiltration of urine into the cellular tissue behind and above the bladder. He (Mr. D.) had seen death occurring from this cause, where abscesses and suppuration extended almost as high as the kidneys in the loose cellular membrane. If the division into the prostate be carried, therefore, up to or beyond its junction with the neck of the bladder, it was almost impossible to avoid wounding that most important boundary. He (Mr. D.) had witnessed many of Mr. Martineau's operations, and was convinced that it was never his intention to carry the wound of the prostate, by the knife, beyond the middle of that gland, and that the opening was dilated and extended by the blunt gorget, the favourite instrument used in the Norwich operation. The incision practised by Mr. Martineau in *cutting out*, was for the purpose of laying the deep and superficial sections into one open and even wound, giving a free and dependent outlet for the urine, after the operation. Mr. Martineau, also, never attempted to heal the wound by the first intention, and although a pledget was applied to the perineal wound at the moment of carrying the patient to bed, yet that was a mere form, and one of the relics of the old school, of dressing the wound. The same form of operation was practised by his (Mr. D's.) father, in upwards of one hundred cases, and the only patient who had died of hæmorrhage was one in whom the cutting gorget had been used, an instrument which he never resumed.

Mr. BRANSBY COOPER agreed in the main with these observations. He could not see how it was possible to wound the pudic artery in this operation. Regarding the after-treatment, he must confess, he did not see the utility of the tube, as employed by Mr. Liston.

Mr. LISTON said that the operation described by Mr. Mayo, he believed, was the one which Cheselden had rejected as the least successful of the three kinds of operation which he was in the habit of performing. Mr. Mayo did not appear to be more successful in following this mode of proceeding than were other surgeons who performed the other kinds of operation. He (Mr. L.) had long used the "tube," and he considered with advantage. It certainly for some time acted as a guide to the urine, and so far was a preventive of infiltration.

Mr. QUAIN observed that Mr. Mayo had laid down the general rule, that in lithotomy the external incision should be large and the internal a free one. He (Mr. Quain) agreed with the first but dissented from the second. When he commenced to perform lithotomy, and had to make up his mind as to the best mode, he arrived at the conclusion, which had been supported by everything he had since observed, that so far as the operation itself was concerned, those surgeons met with the most favourable results who cut the prostate to a small extent, insomuch, indeed, that the success might almost be said to be in direct proportion to the smallness of the incision through the gland. It was stated in the paper that the author, after dividing the superficial parts, passed the knife through the prostate (the edge of the instrument being directed towards the operator) and divided the gland forwards, cutting to the membranous part of the urethra. This plan seemed to him (Mr. Quain) to be one of very great difficulty. It was no easy matter for the surgeon to open the membranous part of the urethra, and introduce an instrument through it, without the help of a staff, as was well known to those who had operated in cases of infiltration of urine with impassable stricture. To feel the prostate at the bottom of the wound, and to direct a knife into the staff through that body, must be exceedingly difficult to accomplish. Moreover, he did not understand what advantages the author of the paper believed this plan to possess over the comparatively easy one of introducing the knife into the staff, in what was called the membranous part of the urethra, where the instrument might be felt, and then directing it onwards in the groove. As to the manner of dividing the gland, he believed it was best to make merely a nick, or a very short incision, with the knife, and then, in ordinary cases, to trust for the enlargement of the wound to the finger. It was objected that a lacerated or jagged wound was thus produced. This objection, however, was not well founded. The prostate was fully and evenly divided, incised, as it were, by the finger, at the same time that the fascia behind the gland and the bladder were untouched. Agreeing with gentlemen who had spoken as to not cutting the fascia, he was unwilling to refer to that subject without alluding to Scarpa, who, he believed, was the first to connect that membrane with the explanation of the evils resulting from a free incision towards the bladder. But he was disposed to think that all the evil resulted from the division of the bladder, and that the

fascia marked the part, the neck of the bladder, which it was unsafe to divide. He had seen one case in which death occurred after lithotomy, where the prostate was cut through its whole length, and the fascia and the neck of the bladder were divided to a small extent. Urine had escaped through an opening behind the fascia, and was diffused around the bladder. When the bladder was divided at all, the edges of the incision did not remain in contact, but in consequence of the nature of the tissues they gaped like a divided muscle. With respect to hæmorrhage, he agreed with Mr. Cooper in thinking that the pudic artery referred to in the paper was very unlikely to be injured. The unusual branch which had been mentioned was not often present, and when present there was not generally a risk of wounding it, for it commonly lay on the upper and back part of the prostate, and was very rarely placed on the side of the gland. But extensive hæmorrhage might arise without any considerable artery being wounded. He had observed one unsuccessful case in which, though there had been bleeding to a large amount, it was found to have proceeded entirely from small arteries on the prostate. The subject of that case, however, he should say, died rather *with* hæmorrhage than *from* it, for there was infiltration of urine, and that, he had no doubt, was mainly the cause of death.

The next meeting will be held on Tuesday, Jan. 10th, 1843.

MR. SYMES' EXPERIENCE IN LITHOTOMY.

To the Editor.—Sir: The "Lon. and Edin. Monthly Journ. of Med. Science" for Dec., contains a paper on lithotomy, by Professor Syme, of Edinburgh, written apparently to decry the manner of operation practised by Messrs. Liston, Lizars, Fergusson, &c., who confine their incision through the prostate to a very limited extent, employing the finger for its farther requisite dilatation. This practice Mr. Syme condemns, not very mildly, but in terms that are calculated to induce belief that serious results are inevitable in the practice of those surgeons, and that the mortality in their hands is necessarily great, from their barbarous mode of operation. Mr. Syme says that in lithotomy his own "success" has been in "no small degree *bad*," and his own "experience" of the operation "bitter," which two events (lamentable both to the patients and the surgeon) he attributes to his having dilated with the finger the limited incision of the prostate. But he has either totally forgotten or never known the reason of this practice, and attempts to draw a comparison between the injury inflicted on the prostate by a free incision and the above mode of operation. The real question, however, lies between the *limited incision*, the *subsequent dilatation of the gland*, and the *free incision through the gland*, and the thereby necessary interference with *the reflection of the pelvic fascia over its base*. The danger of interference with this fascia, and of subsequent infiltration, is the true reason for inculcating a limited incision in the prostate, and not, as Professor Syme supposes, the dread of any danger that is likely to result to the gland itself from its free division. This is a most important difference, and Professor Syme's paper is calculated to mislead surgeons as to its real nature. But, independently of this important difference, and the great danger of interference with this fascia, Professor Syme's plan of extensive incision does not possess the least practical advantage. The extraction, even of a moderately-sized calculus, is not accomplished, even through a fair incision in the prostate, without much mechanical dilatation, and the evil consequences from bruising of the gland are not less liable to follow the one procedure than the other, for the dilatation and bruising are much the same in both. He mentions three cases at the end of his paper, on which he says he operated with his "usual success." Does this mean that the patients died, for at the commencement of the paper he informs us that his usual success has been *the reverse of satisfactory?* He is shocked and alarmed at the "modern heresy" of reviving the apparatus-major operation, which operation was named, not on account of the dilatation of the prostate, but on account of the numerous instruments employed in its performance; and yet he himself, in his endeavours to acquire dexterity in that operation, swells the short list of simple instruments at present used so ably, and with such good results, by the eminent surgeons whom I have named, whose "success" in lithotomy, unlike Professor Syme's, has not been "bad," and whose "experience" has not been "bitter."

Your obedient servant,

SCOTUS.

ROYAL MEDICO-BOTANICAL SOCIETY.

December 13th, 1842.

Earl STANHOPE in the chair.

A LECTURE was this evening delivered by Dr. COOKE, the professor of toxicology, on *the medical properties of the natural order, Papaveraceæ*. The lecturer commenced by stating and defending the doctrine that the natural order to which a plant belongs indicates its medical properties, with certain limitations and exceptions. The limitations (by attention to which the number of exceptions is greatly reduced) are, following Decandolle,—

1. That similar parts of plants shall be compared.

2. That the plants shall be under the same circumstances as to age, soil, culture, light, &c.

3. The mode of preparation shall be the same.

4. We must not confound difference in degree of activity (from dilution of the active principle by starch, gum, &c.) with difference of kind.

5. Account must be taken of the impossibility of deciding what are the true primary effects of remedies.

6. No true natural system has yet been discovered; hence many plants are, doubtless, wrongly placed.

7. Mechanical or accidental properties, such as rough hairs, &c., must be distinguished from those really medical.

Tried by these tests the *Papaveraceæ* would exhibit a general similarity of effects, viz., narcotic, with the addition (where morphine is absent) of acrid and irritant effects. The chief genera possessing irritant properties are chelidonium, argemone, and sanguinaria. They blister and inflame the skin, but at the same are decidedly narcotic. Even opium, when new, will cause sneezing and lachrymation; and, when deprived of morphine, possesses still more evidently irritant powers. The lecturer then discussed the share which each of the chemical principles that are found in opium, for instance, morphine, narcotine, narceine, meconine, &c., has in influencing the peculiar powers of that drug.

COLLEGE OF SURGEONS.

ENGLISH STUDENTS VISITING PARIS.

To the Editor.—Sir: The Lancet of Dec. 3rd contains a letter signed "J. Berncastle," in which the London College of Surgeons is charged with refusing to recognise *any* Parisian medical certificates from candidates for its diploma; but in 1840 a fellow pupil and intimate friend of mine transmitted his course of study to the secretary of the college, informing him that it was not complete either as to the period of study or the number of lectures which the college insisted upon from candidates, unless the court recognised his Parisian certificates. The secretary submitted the matter to the council, and their answer was favourable to my friend, who was examined in the usual way, and was granted the diploma. I admit that the college does not *advertise* its recognition of foreign certificates, and perhaps for the following sufficient reason, namely, that scarcely *one-third* of the English students who visit Paris know enough of the French language to enable them to follow even the *clinical* lecturers, much less thoroughly to understand the lectures delivered at the university and private schools. This is a lamentable fact, which many, as well as myself, can vouch for; and I am sorry to add that in consequence of this insufficient knowledge of the language but few of the English medical students in Paris derive any benefit from their stay in that city. Indeed, I may say that they lose in general medical knowledge by the trip. The greater number, in *one* respect, are certainly benefited in the more dexterous use of the knife, for subjects are so cheap that you may, in a way, perform all the operations upon the body *twice over* for 25 francs, whereas in London such a double course would cost the student nearer 25*l*. I would advise that no student who is not a good French scholar should ever think of going to Paris for instruction until he has made himself a thorough *anatomist* in his own country. He may then cut and slash the French carcases with advantage, if only in teaching him the use of surgical tools, which not one surgeon in a hundred educated in England is acquainted with,—certainly not at the completion of his *pupilage*. But I fancy I hear some say that if Parisian certificates are granted to English pupils it is a proof that they understand the language. It is not, however; for if a student, for example, be pretty regular in his attendance upon the hospital surgeons, so that his face may become known to them, he is granted a certificate on knowing only *just enough* of French to ask for it. These circumstances becoming known to the examiners of the London College of Surgeons, are they not justified in refusing Parisian certificates? Certainly, it may be answered, unless the candidate possessing them shows a satisfactory knowledge of the French language, and if on examination he does, then his French education and certificates ought to be allowed as part of the course of study insisted upon. You knew, Mr. Editor, the late highly talented Dr. King, of Hanover-street, London, and are well aware that he was admitted a member of the college in Lincoln's-inn-fields, although his medical education was *exclusively* French. Poor King! Peace to his ashes! His anxiety and struggles for medical reform, and more especially reform of this very college, caused his death, his exertions raising up against him a host of enemies in all the members of the council, who were previously much prepossessed in his favour. One of that body, knowing that I was intimate with King, said to me, "Why don't you persuade King to do something by which he can be again taken into favour by the council; something to redeem his past opposition to the college?" I mentioned this advice to him, but though he replied not, I plainly saw he would not, for the sake of self-interest, act contrary to his conscience, or his previous line of conduct. He was, as I said before, a highly-talented but ambitious man, and finding himself excluded from "place and

power" he became despondent and melancholy. I may truly say that he was (like poor Lambert) one of the early victims to the cause of medical reform. I am, Sir, your obedient servant,

M. D.

Glasgow, Dec. 12, 1842.

THE BANNER OF THE PHARMACEUTICAL SOCIETY.

A CORRESPONDENT, who has given his name and address in a private note, informs us that he received the following circular a few days since:—

"J. C. WARD, *Member of the Pharmaceutical Society*, Chemist and Druggist,

"In returning his sincere and grateful thanks to the gentry and inhabitants of Hounslow and its vicinity, begs to assure his friends and the public, it will always be his constant endeavour, by accuracy in dispensing—JUDMENT IN PRESCRIBING—care in the selection of the purest drugs and chemicals—combined with strict personal attention, to merit a continuance of the favours conferred upon him for nearly the last four years. He has annexed the *British wine trade* to his present business, which article he pledges himself to send out free from adulteration.—**** J. C. W. performs all the minor *surgical operations*, bleeding, cupping, extracting teeth, &c. &c.—Church Parade, Hounslow, December, 1842."

Our correspondent adds,—"I think that the issue of circulars of this description by members of the Pharmaceutical Society shows the animus of the whole body. Its author is three or four and twenty years old, and yet would gull the natives by talking of his "judgment in prescribing!" It is not long since that a verbal communication was made to another of the tribe in the town in which I reside, that the medical gentlemen being aware that he had *visited patients as an apothecary* they would hand him over to the Apothecaries' Company, and furnish them with a list of cases. This had the desired effect, for he ceased to attend, at least so far as we could learn. We must administer a similar dose to this would-be general practitioner in physic, wine, and minor operations. I am sorry to say that I think the fault of these mischief-workers lies with the senior practitioners, many of whom would say, 'I shall not take this trouble, or join this or that society, as the proceedings of such youths will not injure me, neither will any medical reform be of use in my path. I take things easily' (they having the cream of the practice in the neighbourhood), 'and you younger members must exert yourselves.' Consequently unions of medical men are not formed as they should be, for junior practitioners do not like to originate proceedings which are not countenanced by their seniors. I trust that the British Medical Association will try to obtain signatures to their petition for a sound Bill of Medical Reform, by sending small printed copies to some general practitioner in every town in England, accompanied by a printed request for him to get it signed by as many practitioners as he can, on sheets of paper, for transmission to the proper quarters for presentation to the two houses of Parliament."

LETTER FROM MR. J. T. CARTWRIGHT.

To the Editor of THE LANCET.

SIR,—In the last LANCET appear some remarks which seem to reflect upon me, and to convey insinuations calculated to affect my honour as a medical man; these I consider it a duty incumbent upon me indignantly to repel, as they cannot be substantiated by facts. If it could be supposed that a medical man could desert the profession, could take leave of honour and integrity, and could so far forget the feelings which ought to actuate every upright and respectable member of the profession, as to give his vote merely from interested motives, and contrary to his convictions, then is he justly exposed to every animadversion; but a plain statement of facts will prove that I cannot be charged with such unworthy motives. No person can be fairly accused of being impelled by motives of interest in the case of a choice which does not exist. Now, my vote was promised to Mr. Phillips before Dr. Dehane or any other medical man had offered himself as a candidate; and had you, Sir, been present at the dinner given to Mr. Phillips, at which I presided in consequence of the unavoidable absence of Mr. Ryton, and at the urgent solicitation of several gentlemen present, you would have felt convinced that in my hands the claims of the profession were not compromised, as I took occasion to state in my address to the gentlemen assembled, that although I had given my support to Mr. Phillips, under peculiar circumstances, my conviction was, that as a general rule a medical man was best calculated to fill the office of coroner. I am, Sir, your obedient servant,

J. TALBOT CARTWRIGHT.

Wolverhampton, Dec. 20, 1842.

**** We cheerfully insert this letter, but let us also balance accounts. On the one hand stands the little item of the useless declaration in an assembly where all the personal feelings and ancient prejudices were prepared to give it the coldest of receptions. On the other appear the vote for a non-medical candidate, and the influential act of presiding at his festival. One taken from 10 leaves 9,—"to the bad," as printers say. Where were the *esprit de corps* and the principle when the vote was promised, even

though no medical candidate and well-educated gentleman was in the field? And how, moreover, came Mr. Cartwright *at the dinner at all*,—in itself an express triumph of the *attorney* party? We cannot doubt, however, that so respectable a member of the profession as Mr. Cartwright will return to his allegiance on the very first opportunity that occurs.

THE LUDGATE-HILL MEMBER OF THE COLLEGE.

To the Editor.—Sir: I would have given you much more credit had you not inserted the queries of "A Constant Reader," "An Enemy to Quackery," and "A Reader since 1823," in LANCET, Nos. 1001 and 1004, without inquiring into the facts of the case, as they were intended to do me considerable injury. My object in addressing you is merely for the purpose of giving you an exact statement of facts, for which I must claim your indulgence. About two months since I adopted the plan of giving medicine and advice for 6d. each person, and for what reason "A Constant Reader" should find fault with me, I am at a loss to understand, as I am not the only surgeon who does so; but I suppose it is through spleen, which I care not for, as it is my object to live *conscientiously*; and, in answer to "An Enemy to Quackery," and "A Reader since 1823," respectively, I would beg to inform them, 1st, that I am registered as surgeon in the College of Surgeons, as *Joseph Nelson*, and can prove that I am in no way connected (beyond acting in *my capacity*) with the firm of Dunn and Co., 42, Ludgate-hill, chemists, &c.; 2nd, that I have never been to the "Cape and back," but have acted as surgeon in her Majesty's steamer *Sesostris*, while bombarding St. Jean d'Acre, where I was wounded, and for which I receive a noble gratuity for my services, a pension from the Crown, a fact which "A Reader since 1823" can easily inform himself of, by reference to the list of wounded in the despatch of Commodore Napier. By giving insertion to the above statement, which I deferred by advice *until the storm had subsided*, you will particularly oblige your reader and obedient servant,

JOSEPH NELSON, Surgeon, &c.

Ludgate-hill, Dec. 13, 1842.

*** Our correspondents will see, in a moment, that there is no occasion for either of them to comment on the letter of Mr. Nelson Dunn.

THE WATER POISON.

THE following case (says Dr. Thomas H. Silvester, of Sackville-street, in a communication addressed to THE LANCET, dated Dec. 12th inst.) will be sufficient, I think, to convince any reasonable person that the hydropathic system of treatment is not always unattended with danger; one may even go farther, and declare that in the present instance a disease of an acute and mortal character was engrafted on that for which the water had been prescribed:—

A gentleman who had been residing at a hydropathic establishment on the Rhine, and had gone through the whole process of "the cure" as it is called, returned to this country still suffering from the peculiar eruption, or crisis. He said that nothing could be more pleasurable and exhilirating than the various kinds of baths employed, and that he seemed to derive much advantage from their use. The internal administration commenced by the patient taking two tumblers of water during the day. The dose was gradually augmented until it amounted to twenty-five tumblers in the same period. Abscesses began at the end of a month to make their appearance on several parts of the body. These were exceedingly painful, so much so, as to render his days wearisome and his nights sleepless. He was told, in answer to the complaints which he made on this head, that the eruption constituted "the crisis," and that the morbific elements having undergone the necessary coction, were about to be eliminated and cast out of the system through these artificial channels, and that instead of sympathy, he deserved the congratulations of his friends at the fortunate termination of his disease, and consequent restoration to perfect health. He determined, however, after having suffered great pain, with feverishness and exhaustion, for nearly a fortnight, to return home; this he accomplished with some difficulty. I visited him immediately on his arrival. He first drew my attention to an abscess on the wrist. It was of a livid hue, about as large as a walnut, and exquisitely tender to the touch, and a bloody sanies streamed from several distinct apertures on its surface. Another, of a similar character, but as large as a hen's egg, was situated in the perineum. A third of almost equal size, occupied the pubic region. Many others were to be seen on the body and extremities. They did not, in their mode of distribution, appear to submit to the law of symmetrical arrangement. Not one was to be found on the left half of the body. Interspersed between the larger specimens were many of smaller size, and some so diminutive as scarcely to deserve the name even of abscesses, being merely deposits of pus under the cuticle. Every effort was made to restore the debilitated constitution of the patient, but in vain. Abscesses continued to break out anew, about the hand and wrist. The absorbents along the internal face of the arm, as far as the axilla, became inflamed, and the patient, at length, worn out with intense suffering, sank, a victim (shall I say) to—*the water cure*.

*** We have given it, above, another name.—*Lancet*.

EXUDATION OF MILK OVER THE WHOLE SKIN, AS A METASTASIS.

Dr. Rasi, in the "Bulletino delle Scienze Modiche" for May, 1842, cites a remarkable case illustrative of the phenomena of metastasis. An usually healthy and robust peasant woman, twenty-seven years of age, was obliged, by broken breast, to wean her infant. Subsequent to this, owing to various imprudencies which are not particularised, the secretion of milk suddenly stopped, simultaneously with which the joints of the lower extremities became affected with sharp pains. The patient was at first treated for arthritis, by ordinary antiphlogistic methods. The joints, however, were neither painful on pressure, nor exhibited the blush of inflammation, and much doubt was entertained as to the real nature of the disease; when, on the 17th day, after an abundant perspiration, the whole surface of the body became covered with specks of a whitish colour, strictly similar in appearance to those seen in miliary disease, but which, in about twenty hours, became converted into vesicles, containing a white fluid, to all appearance resembling milk. This fluid was somewhat heavier than water, slightly reddened turnsol paper, was not coagulated by acids, and when submitted to the action of ether, gave origin to a deposit of white filaments, which, treated with dilute hydrochloric or acetic acid, dissolved completely, thus manifesting their identity with the caseum of milk. Other particulars are given respecting the chemical constitution of this fluid, but we are unable to give any relating to the termination of the case.—See *Gazette des Hôpitaux*, Suppl., Oct. 15.

RUPTURE OF THE JEJUNUM FROM VIOLENCE.

A Prussian hussar, while cleaning his horse, received a kick in the abdomen, which was followed by severe pain, though this did not prevent his finishing his task. The pain was afterwards greatly alleviated by cupping over the region which was the seat of the injury, and the man slept tolerably well that night. But in the morning, after having taken a large draught of water, he felt a wish to evacuate the bowels, and on proceeding across a court-yard for the purpose, he was seen to fall to the ground. On his comrades going to raise him up, he was found to be dead. On opening the thorax, its contents were found to be healthy, except that the lungs seemed gorged with blood. On penetrating into the cavity of the abdomen, a quantity of yellowish fluid escaped, intermixed with half-digested peas, a large quantity of which the patient had eaten on the preceding evening. Both the peritoneum and the intestines in the neighbourhood of the part which had received the kick were considerably inflamed. But the obvious cause of death was a rupture of the jejunum, a solution of continuity as large as a half-crown piece, through which, evidently, the quantity of liquid taken a few minutes previously to decease had been suddenly poured into the cavity of the peritoneum. The circumstance chiefly remarkable in this case was that it proceeded, from its commencement to its termination, with scarcely any of the ordinary symptoms of peritoneal inflammation.—*Medicinische Zeitung*, 1842.

Peculiarities in the Kidneys.

M. Heyfelder has discovered in the body of a soldier, who had died of pulmonary phthisis, a remarkable union of the two kidneys at their lower extremities by means of a membranous band about an inch in breadth resting on the common iliac arteries at their commencement. The kidneys were of unequal size, the left being both longer and larger, and supplied with two arteries from the aorta, while the right had but one. A material difference in the size of the two kidneys, with other singular pathological appearances, was remarked in the examination of a patient in the Hotel Dieu, Montpellier, deceased with a hepatised lung. The right kidney was at least twice as large as ordinary, while the left, of about the usual size and shape, had lost most of the ordinary anatomical characteristics of the organ, both the cortical and tubular portions, being replaced by matter of an ossific nature. The patient, however, during his stay in the hospital, made no complaint of pain in the lumbar region, and the urine passed was perfectly natural.—*Gaz. Med. de Montpellier.*

Chances of Cure for Hare-lip.—M. Roux has now operated for this deformity above 100 times. In cases of "division simple," that is, we presume, when the division extends no further than the lip, success has attended the operation about twice in three times; but in complicated divisions, or when the fissure has extended to the palate, &c., only one-third of the operations have been thoroughly successful. In this, then, we may consider that we are possessed of tolerably fair data for calculating the chances of success or failure of the operation.—*L'Experience*, Oct. 13th.

ROYAL COLLEGE OF SURGEONS IN LONDON.

List of gentlemen admitted members on Friday, Dec. 16, 1842: M. Ward, F. J. Osborne, C. P. Daniell, W. T. Edwards, W. S. Watson, A. Stephens, J. Hancock, F. Wallis, R. Baker, W. Milner, P. Benson, A. King, H. R. Daniell, T. W. Sothergill, F. Hawshorn. Admitted Monday, Dec. 19, 1842: H. Hadlow, G. Newstead, H. Carless, J. Lugg, T. Howell, J. C. Blanshard, G. Holman, J. P. Oates, H. W. Best, G. Pink, T. Lyle, T. B. Hunt, T. Good, R. Cammack.

BOOKS RECEIVED.

Tic Douloureux, or Neuralgia Facialis, and other Nervous Affections, their Seat, Nature, and Cause; with cases illustrating successful methods of treatment. By R. H. Allnatt, M.D., A.M., F.S.A. London: J. Churchill. Post 8vo, pp. 184.

Chemical Manipulation; being Instructions to Students in Chemistry on the Methods of Performing Experiments of Demonstration or Research with Accuracy and Success. By Michael Faraday, D.C.L., &c. Third Edition. London: Murray, 1842. 8vo, pp. 664.

The Prescriber's Pharmacopœia, or all the Medicines in the London Pharmacopœia, arranged according to their action, with their composition and doses. By a Practising Physician. Second Edition. London: J. Churchill. 1843, pp. 149.—This little book, which, however, small as it is, might have been advantageously made by the printer even less bulky, is suited for the pockets of practitioners with short memories, and, when visiting patients, may become a very timely remembrancer.

Annals of Chemistry, Dec. 9th and 16th.

The Pharmaceutical Transactions, Nov. and Dec.

CORRESPONDENTS.

Dr. J. Johnson presents his compliments to the Editor of The Lancet, and begs to correct an error which crept into the report of the proceedings of the Medico-Chirurgical Society on the 13th Dec. (page 449). Dr. J. did not say that the mesmeric paper was "printed *and published*" before it was read in the Society, but only that it was "printed." His reason for thinking so was the extremely brief space of time that intervened between his hearing the paper read and his seeing it as a full-blown pamphlet, hot-pressed, stitched, and ready for publication. From some experience in the management of the press, he came to the conclusion that the paper had been "set up" in type, that slips had been pulled, rough sheets corrected, revises revised, and, in short, everything got ready for "working off" the pamphlet as soon as the important heading, "Read before the Royal Medical and Chirurgical Society," could be safely introduced. But whether the paper was committed to type immediately before, or immediately after, its rehearsal in Berners-street, matters not a whit. The object and intention of the mesmeric party are as clear as the sun at noon-day, namely, by a *ruse de guerre*, or rather a *ruse litteraire*, to obtain a *quasi* recognition of the Society, and then, *nolente volente societate*, immediately to publish the *miraculous* operation. The mesmeric party, it must be confessed, deserve great credit for the dexterity with which they have played their cards, and for the complete "go-by" which they have given to the magnates of the Royal Medical and Chirurgical Society.

Suffolk-place, 17th Dec.

Retention of the Placenta with Hæmorrhage.—Mr. Snow finds that in cases of this kind, arising from inaction or insufficient action of the uterus, the womb may often be incited to contract and expel the placenta, and thus stop the hæmorrhage, by the following measure:—Two fingers are to be introduced into the vagina, and firm pressure made with them against its posterior part, so as to bear down on the perineum, in imitation of the pressure of the child's head when it is about to be expelled. This causes the uterus to contract through the reflex function of nerves supplied to the parts.

The "Rational" Treatment of Insanity.—Sir: I beg to correct an expression in my last letter, which has evidently misled you, and which, from a slight alteration in the manuscript, must also have conveyed an erroneous impression to your readers. When I employed the words "rational system," it was not with any idea that they would or ought to be adopted to designate any general system of treatment. They were used as an additional illustration of a principle which I was endeavouring to explain, namely, the necessity of enforcing towards each individual patient the special remedies which the peculiarities of his case indicate, and of avoiding the adoption of one uniform system as applicable to every variety of case; that is to say, recommending that we should be guided by the dictates of *reason* in the *plan* of treatment we pursue. I am, Sir, obediently yours, G. L.—Dec. 17th.

Inquiry.—*To the Editor.*—Sir: Two children, two and seven years of age, have had, for three weeks, a profuse vaginal discharge, of a yellowish colour. General health good, and no difficulty in making water. I have used injections of alum, zinc, and nitric acid, diluted, and have internally administered copaiba. The discharge has but very slightly diminished. Can the experience of any of your readers suggest a remedy? Yours obediently, C.—Dec. 13th.

M. D.—The death of the person who is said to have died from "chronic inflammation of the brain," was the result of suicide, committed in the country.

Mr. Horne's letter shall appear with the reports.

Dr. Dehane.—*J. G.*, of Wolverhampton, expresses his surprise at our suffering any condemnation of Dr. Dehane, in relation to the Staffordshire coronership, to appear in The Lancet. He says that "Dr. Dehane's conduct perhaps was blameable," but that "if his medical brethren had come forth with that unity which *ought* to distinguish the profession, his election would have been

certain, but that Mr. Philips's wine and eatables were too strong for them in Wolverhampton;" the question becoming "not whether a legal or a medical man should hold the appointment, but one of money." "Dr. D.," our correspondent adds, "is complained of because he is economical in his household, and therefore was unfit for a coroner! Pity that those who have raised the cry about Dr. D.'s parsimony had not inculcated a little of it for their own advantage in life."

A Parent.—We have not had personal experience of the qualifications in that unusual department of practice, of any surgeon in London.

Dec. 19th.—Sir: With a surgeon's diploma can I dispense medicines in England, provided that I charge for *attendance only*, and not for the medicines sent out? Your obedient servant, A SURGEON. —*** Not in "medical" cases, without being liable to prosecution under the Act of 1815.

INSANITY.—An intelligent correspondent writes:—I have read, of late years, with much interest, accounts of the improved systems of treating lunatics, but I am inclined to think that much might be done to prevent insanity, even where hereditary predisposition has existed, by judicious education. Conversely, I believe that the foundation of mental, as well as of corporeal, maladies is often laid during life at school. Although I do not explicitly make such a statement public in connection with my establishment, yet I have been quite as much occupied here in counteracting tendencies to disordered intellect, as to pulmonary disease. In this task, the music-master and the drill-master I find my very useful auxiliaries.

An old and respected correspondent has forwarded to us the name of a gentleman, a relative, for whom, having gone through a course of medical studies for the profession, and being well informed on scientific subjects, he would be glad to procure the care of a gentleman in any imbecile state of mind, not violent, whose friends would wish him placed under the superintendence of such a person. As he is also well read in theology, and of a cheerful disposition, he would (our correspondent adds) be able to deal judiciously with a patient predisposed to religious melancholy. The address is in our hands.

A Lover of Truth, at Wolverhampton, "viewing with sincere regret the termination of the late contest for the coronership in Staffordshire," says that he is "quite confident that had the medical brethren of Dr. Dehane acted in *unity*, the finish would have been otherwise. But the Dr. was deserted, and at last, anticipating defeat and an enormous cost, retired, perfectly justified in accepting an indemnification for the expenses incurred, any *blame* on the subject lying at the door of the parties tendering the money. The slanderous reports circulated in connection with Dr. Dehane are raised from private pique, and for party purposes." (With this notice, all reference to the subject, under fictitious signatures, in our columns must cease. The facts already recorded speak for themselves, and no new ones appear to be forthcoming. One thing only we would add, namely, that if the profession means to press its claim, on all future occasions, to fill the office of coroner with well-educated medical men, the foundations for success must be laid in the formation, in every direction, of funds, raised by subscription, for the express purpose of paying the election expenses.)

A FOREIGN PHYSICIAN who recently desired to see the practice of Mr. Liston at one of his clinical visits in University College Hospital, complains of the impediment to that object offered by the hats of the students. In a very large crowd, not a single individual but Mr. Liston and some friend who accompanied him, and one other gentleman, manifested his sense of the inconvenience by uncovering his head. Wherefore, all attempts to take advantage of the upper opening to view the patients, were useless at one or two removes from the bed. This must be the consequence of forgetfulness, which a polite demeanour should on all occasions within doors naturally remedy.

The printers cannot read the crossed letter of *One of the Unprotected*. A clear copy should be sent.

A correspondent complains that some other correpondent has not replied to the question from Aberdeen, inserted at page 268 of THE LANCET for NOV. 12, asking what influence the vapour of prussic acid has upon the eye and its diseases. Probably no answer has occurred that could be given, excepting the common one, that it can have only a dangerous or poisonous influence on the eyes, adding thereto, a very fatal one upon the *pockets*. In the absence of information from any other quarter on the subject, we shall probably next week present to that class of persons who readily subject themselves to impositions in medicine, a very useful NEW-YEAR'S GIFT.

Dr. Lee's letter "on the value of the corpus luteum and deciduous membrane as tests of early pregnancy," has been received. (Why, pray, do any correspondents misdirect their communications for THE LANCET, despite our often-repeated request on the cover that all letters, &c., for the Editor should be sent to his residence in Bedford-square?)

Will *Mr. Self* send to us a printed or short written notice of the trial. Not having space to devote to a "full report," we did not have one taken.

A. B. had better not put his trust in the Bill, but, knowing the present condition of things and his own circumstances, act as the consequent necessity dictates.